Military Intelligence

January–March 1980

The Reserve Component

Military Intelligence

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Cover:

The emblem of the United States Army Reserve, the colonial soldier, is superimposed upon a graphic of today's Reserve in a tank night-firing exercise as *Military Intelligence* presents "The Reserve Component."

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For Intelligence Training Literature, we obtained posters showing Warsaw Pact armored personnel carrier and tank vulnerabilities (page 48–49) and organization of motorized rifle, tank and reconnaissance companies and artillery batteries (pages 59–60). These reproducible posters were developed by the OPFOR/EW Division, Directorate of Training Developments, USAICS.

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The Engineers of CEWI

Editor,

In reading the article "CEWI Update" in your July-September issue, I noticed that no mention was made of the Engineer Terrain Teams in direct support of all corps and divisions. This should not pass unnoticed, since Engineer Terrain Teams are a very important part of the CEWI concept.

At the corps level, a 4-to-7-SM element of the 25-SM Engineer Terrain Team (Corps) (TOE 5-540IJ) will be collocated with the CTOC Support Element of the CEWI Group to support terrain requirements of the Intelligence Preparation of the Battlefield and provide real-time response directly addressing intelligence operations. This element, in conjunction with its parent team, will maintain a terrain data base, convert terrain "information" to "intelligence," interface with all-source capabilities, and produce expedient cartography, terrain factor overlays, overprints, and graphic special products.

Each division contains a 5-SM Engineer Terrain Team (Division) (TOE 5-540IK) totally collocated with the CEWI battalion DTOC support element. These teams perform all the above functions on a limited scale, with emphasis on quick-response terrain evaluation, siting and emplacement information, and expedient graphics—all oriented to specific battles or situations at hand.

The CEWI element at corps and the division terrain team both work for the G2, through the CEWI Gp/Bn commander, to provide "terrain" in the equation "enemy + weather + terrain = combat intelligence." They represent engineer support custom-designed for intelligence use and should be recognized as such.

Roger M. Ryan
LTC, CE

Kudos

Editor,

The AROTC of the University of Michigan recently received a courtesy copy of the Oct–Dec 79 MI Magazine. It has really improved since I last received it. Congratulations on a most professional product.

I would like to request that the Wolverine Battalion be placed on distribution for MI Magazine. We would also appreciate any available back issues for our Wolverine Battalion Cadet Library.

Incidently, I have again ordered a personal subscription to your magazine: it is most professionally done and a credit to the staff.

Joseph M. Blair III
MAJ(P), MI
Professor of Military Science

Active Army, Reserve and ROTC units (among others) can be placed on distribution for MI Magazine upon request.
Editor

Add Survivability

Editor,

Overall, Major Collard's was an outstanding contribution to the professional literature. He provided a workable and easy to understand prescription for survival in the fourth dimension of the modern battlefield. His concept should be included as basic instruction at both the Intelligence and Signal Schools.

His premise that radio and heat emitters, together, can locate a command post to within 50 meters is substantive. However, the accuracy of radio direction finding reported in the article [column 3, para 1, page 13] to be 1 km at a distance of 60 kms or 250 meters at 30 km is either in error or new data and should be footnoted.

Considerable research and testing was used to prepare US Army Training Circular 30-22, *Battlefield Survival and Radioelectronic Combat,* 1978, and that source indicates a probability of less than three percent that enemy tactical radio direction finding equipment can provide a CEP of 250 meters at any distance. The more likely CEP is 1500 to 2500 meters and then only 30 percent of the time. What too often occurs is that operator chatter and poor security allow the enemy to refine even a 2500 meters CEP to a front door address using only basic map analysis.

There are a host of claims about the accuracy of radio direction finding equipment operating at 5 to 150 MHz, but when subjected to testing, a CEP of 1500 to 2500 meters was the rule.

None of this should detract from the overall excellence of Major Collard's article.

Don E. Gordon
LTC, MI

Editor,

In my article, "Add Survivability to the Command/Control Equation," (Military Intelligence, October–December 1979), it was erroneously reported on page 13 that "The enemy has and effectively employs the capability to locate radiating electromagnetic sources within 30 seconds ... from a distance of 30 kilometers with an accuracy of 250 meters."

The paragraph should read, "The enemy has and effectively employs a capability to locate radiating electromagnetic sources within 30 seconds from a distance of 60 kilometers with an accuracy of three kilometers, from a distance of 30 kilometers with an accuracy of two kilometers. It should be noted that these accuracies represent command post location utilizing radio direction finding equipment only. When detailed map and traffic analysis are factored into the equation, the accuracies of command post location are significantly improved. Combine this capability with an expressed objective of eliminating at least 50 percent of Allied command/control communications and the requirement to remote the command post is readily apparent."

In addition, the diagram on page 14 is not Figure 1 referenced on page 13. The correct figure will follow.

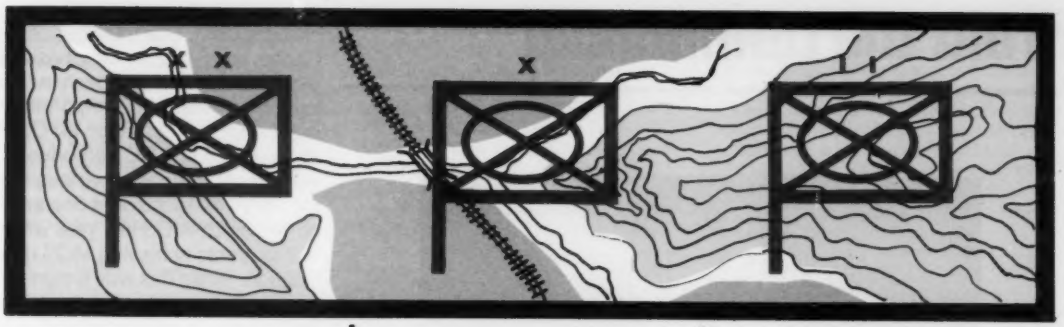
Author Gordon's remarks are well-taken. There have been a number of studies concerning enemy RDF equipment accuracies and capabilities. In addition, there has been **some** attention given to the other factors such as traffic analysis and map analysis. What concerns this author the most and which led to an extrapolated RDF capability of 250 meters is the **excessive** number of radiating high-density traffic emitters which currently pinpoint our command/control centers.

Locations on the battlefield which would accommodate that number of vehicles/emitters are not at all difficult to detect. Further, a close look at Figure 1 reveals that there are eight to 13 net control stations operating at each command/control center.

In considering the total protection effort, we cannot lull ourselves into a false sense of security which is based on equipment accuracies alone.

Nelson B. Collard, Jr.
MAJ, SC

Command Post Electronic Signatures:



Corps	/ Division
CMD	CMD
INTEL	INTEL
RATT 1	RATT 1
RATT 2	RATT 2
RATT 3	SSB
SSB	FSE
	CEWI
	ADA
	FM
	SSB
	USAF
	SSB
	FM
	UHF
	Security

Signature: 19 nets

Division	/ Brigade
CMD	CMD
INTEL	INTEL
SSB	RATT
RATT	CEWI
CEWI	FA FD
FA CMD	ADA
	ENG
	AVN
	USAF
	SSB
	FM
	UHF
	Security

Signature: 18 nets

Brigade	/ Battalion
CMD	CMD
INTEL	FIST
RATT	USAF
FA CMD	SSB
	FM
	UHF
	ADA
	ENG
	Security

Signature: 12 nets

Note: Nets listed to the left of the line are directed to the next higher headquarters which is less likely to displace as often as the subordinate echelons. As a member station, it may be advisable to erect directional one-half wave rhombic antennas to further reduce the command post electronic signature.

TRADOC Battle Reports

Editor,

The US Army Training and Doctrine Command periodically publishes TRADOC Bulletins called **Battle Reports** to disseminate lessons learned, observations, or data derived from simulations, command post exercises, field exercises, or other sources concerning how to fight and how to support on the modern battlefield. These **Battle Reports** are intended to serve as interim guidance until the content can be integrated into appropriate "How To" manuals.

Feedback from the field indicates exceptionally high enthusiasm for, and interest in, **Battle Reports** information. The bad news is that awareness of the existence of this material at combat unit and individual levels is disappointingly low. Surveys show that nearly 50% of respondents have read three or fewer of the 12 bulletins published to date. A significant number are seriously confused about how to obtain additional/subsequent issues for use in instruction and training.

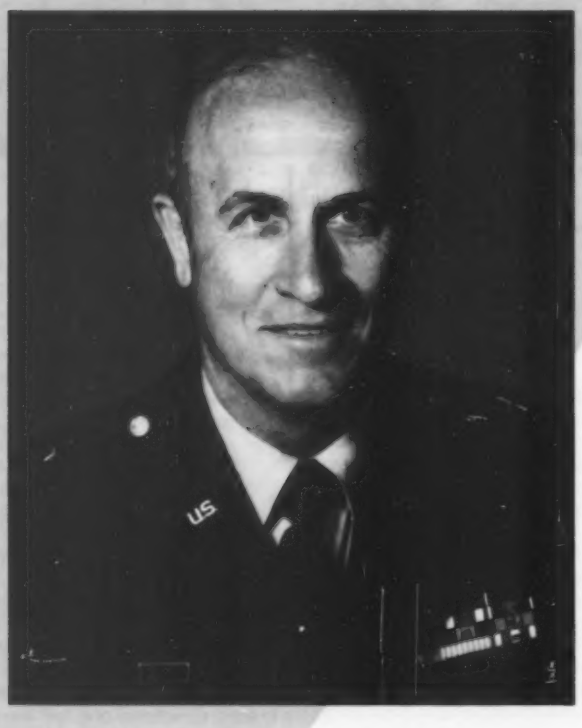
Request that you publish in a future issue the enclosed, describing for your readers the nature and source of TRADOC Bulletins (**Battle Reports**). Hopefully, this will generate interest in the field and put valuable training information and ideas in the hands of the troops, where it can best be used. Since these **Battle Reports** and other proposed follow-on materials appear in the form of short vignettes and address a single topic, they are more likely to be read and implemented than some of the more voluminous manuals now in print.

As an additional point of interest, any agency or individual may nominate material for inclusion in **Battle Reports**. Such material should be submitted to Commander, TRADOC ATTN: ATDOC-DDD, Fort Monroe, VA 23651.

DONALD R. MORELLI
Brigadier General, GS
Deputy Chief of Staff
for Doctrine

(continued on page 58)

from the Commander



Reserve Component (RC) military intelligence personnel and units represent more than one-half of our personnel assets required in mobilization. This fact makes their training and readiness condition a matter of vital concern to all members of the military intelligence community and to all combat commanders in the United States Army. The conversion to Combat Electronic Warfare Intelligence (CEWI) units, both active and reserve components, increases the need to adequately prepare our Reserve Component military intelligence units in the doctrine of how we expect military intelligence units to support the combat commander.

The Intelligence Center and School is continuing to aggressively develop training programs for Reserve Component personnel with strong emphasis on SIGINT/EW training both at Fort Huachuca and Fort Devens.

The primary Reserve Component training vehicle for the past 33 years has been through the FORSCOM Intelligence Training Army Area Schools (ITAAS) with material support from the Intelligence Center and School. In recent years, this effort has been expanded to include year-round training in the traditional MI skills and basic officer multi-discipline skills at Fort Huachuca with SIGINT/EW MOS training conducted at Fort Devens.

CEWI implementation will significantly increase the SIGINT/EW training requirements in Reserve Components with a decrease in other training. The Intelligence Center and School is emphasizing a multi-discipline approach in training for our Reserve Component personnel in preparation for CEWI. More than 3,000 RC personnel were in attendance at various training activities sponsored or supported by USAICS last year with 917 students achieving MOS qualification. While this was a significant achievement and represented an increase in personnel and unit readiness, it is still necessary to increase training, particularly in the SIGINT/EW field.

Here at USAICS, we recognize that some MI reserve units are achieving an MOS and readiness condition equal to their active Army counterparts. Of particular note are the three National Guard Mohawk units, the 314th ASA Bn (Prov CEWI), and the 24th MI Bn (AS). These units have demonstrated through participation in ARTEPs and/or field exercises that they are capable of mission accomplishment in a combat situation.

I am particularly happy to observe that, at a time when many active and reserve component units are decreasing either in strength or MOS qualification, the Reserve Component military intelligence units are showing increases in strength and MOS qualification. This is being accomplished despite training and mission equipment shortages. The dedication and ingenuity of our RC military intelligence personnel in solving problems and getting on with the job to be done is an example to all—one we all should emulate.

I enjoin all active military intelligence personnel to become familiar with their Reserve Component counterparts, both unit and individual and to seek opportunities to work with them as often as possible. Our citizen-soldiers have talents and capabilities that are needed to support our national objectives and should be used whenever possible.

In summary, I believe a viable Reserve Component is essential and will actively seek ways to assure one Army, one school, and one MI standard for all.

6 LTC Eugene P. Taylor

LTC Engene P. Taylor is a graduate of Rutgers University, having earned a BA in Government in 1951 and a JD in 1953. He graduated from Command and General Staff College in 1969 and is also a graduate of both the Military Police and Military Intelligence Officers Advance Course. LTC Taylor is the USAR Advisor to the US Army Intelligence Center and School and is assigned to the Office of Reserve Training.

10 LTC Jesse J. Frey, Jr.

LTC Frey is a graduate of the US Army Command and General Staff College, and holds an MA in international relations from Boston University. He is a West European Foreign Area Officer, Reserve Component, with active duty intelligence experience in Germany and Vietnam. As a reservist, he has commanded an ASA detachment and served as Chief, USAISD Reserve Training, Fort Devens. In civilian life he is president of Microsculptures, Inc., of Franklin, Massachusetts.

14 LTC G. Lee Southard,

LTC Southard holds a BS from the Virginia Military Institute, an MS from George Washington University and a PhD from the University of North Carolina. He is a graduate of the MI Officer Advance Course and the US Army Command and General Staff College. Active in the USAR, LTC Southard has served with two MID(S), most recently as project officer for the 481st MID(S), Fort Wadsworth, NY. He is president of Southard Research Associates, North Brunswick, NJ, a research firm specializing in technology assessment in the bio-medical fields and in research management consulting.

16 MAJ Jerry F. Pickar

MAJ Pickar has served in such positions as: S3 and HQ and Operations Company Commander, 522d CEWI Bn, Assistant G2 Operations, 2nd Armored Division and overseas intelligence assgnments in Vietnam, Germany and Thailand. He is currently the Military Assistant to the Assistant Director for Plans and Resources, National Security Agency, Fort Meade, MD. MAJ Pickar holds a BS from Southern Illinois University, an MA in political science from the University of Oklahoma. He is also a 1979 graduate of the US Army Command and General Staff College.

25 1LT K. L. Jamison

Lt. Jamison is an ex-actor, military historian, and a 1975 Distinguished Military Graduate of the University of Missouri-Columbia. After the Infantry Officer Basic Course he volunteered for Korea and was a Platoon Leader in a Company composed of KATUSA (Korean) soldiers. On his return to the States he volunteered for Special Forces and was a Team Leader in the 5th Special Forces Group. The first draft of this article was written during a Team stand down while in the Nantahala National Forest in North Carolina. He is now the Assistant S-3 Officer in Headquarters Command XVIII Airborne Corp Fort Bragg North Carolina.

32 CPT Wayne M. Hall

CPT Hall holds an MA from Kansas State University. He has served as the S2 of the 3rd Bde 2nd Inf Div and as Commander of the 337th ASA Company, 1st Inf Div. CPT Hall participated in Reforgers 74, 77 and 79. He has completed the Infantry Officer Career Course by correspondence and is currently attending the Post Graduate Intelligence Course in Washington, DC.

37 COL Andrew M. Rutherford

A 1950 graduate of West Point, COL Rutherford holds a Masters in political science from the University of Alabama. He is a graduate of the Air War College and was a visiting lecturer at the Joint Warfare Establishment, Old Sarum, Salisbury, United

(Continued on page 45)

Intelligence Training and the Reserve Components: An Historical Perspective

by LTC Eugene P. Taylor

Military intelligence units within the Reserve Components account for more than 50 percent of the US Army's intelligence capability. The intelligence specialty training of the Reserve Components has been separate from Active Component training for more than 32 years.

It is appropriate to trace the development of modern military intelligence and military intelligence training from the early 20th century.

Colonel Ralph H. Van Deman is considered by many to be the father of today's US Army intelligence system. Through his dedication and tenacity, mililtary intelligence became part of the Army staff system.

The father of intelligence training, at least at the tactical level, is General John J. Pershing. While commanding the American Expeditionary Force in France in 1918, General Pershing ordered the establishment of the first tactical intelligence training school. Under his direction, a staff and faculty was created to teach the forerunners of today's intelligence analysis, interrogation, aerial surveillance and counterintelligence disciplines. While the standards of instruction would not meet today's requirements, they were adequate in light of available technology. Sophisticated aerial camera systems did not exist. Intelligence Preparation of the Battlefield had not even been conceptualized. The techniques of prisoner interrogations were still in their infancy. Not only was serious intelligence training undertaken, but several members of the original staff and faculty became famous in military annals including Vinegar Joe Stillwell, George S. Patton and Billy Mitchell.

Although the need for tactical intelligence training was established, it was all but forgotten after World War I. It wasn't until 1940, in the face of imminent war that intelligence training was resumed. Two Corps of Intelligence Police officers, together with FBI and Treasury agents, established a training school in Chicago. World War II gave rise to a tremendous resurgence in intelligence training, at all levels.

While World War II irrevocably established the need for intelligence at both the strategic and tactical levels, budgetary constraints affecting the Army following cessation of hostilities very nearly terminated intelligence training once again. In 1947 a Strategic Intelligence School was established, and the Army Ground General School at Fort Riley continued as an Agressor Center. Formal training remained in Counterintelligence and Signals Intelligence, but all other intelligence training virtually disappeared.

With little fanfare and without general notice, however, Reserve Component intelligence training began in 1947. Many Reserve officers and enlisted personnel were concerned that without continued training they would lose the skills which they had acquired during World War II, and they were convinced that the United States could ill afford to be caught again in the state of intelligence preparedness which existed just prior to World War II.

CONUS Army commanders were requested to establish Army Area School where reservists could maintain their proficiency in intelligence skills. Again, budget constraints precluded the establishment of permanent intelligence schools for the Reserve Component. Reservists were, on the other hand, authorized to establish a two-week school, in the summer of 1947, to train in intelligence subjects. Training consisted mostly of exchanging information about their personal intelligence experiences during World War II. The schools were manned by Reservists and had little support beyond the authorization given by the CONUS Army commander.

Gradually, "war stories" ran thin and the Army Area Schools sought formal training from the Army Ground General School. The Aggressor Center of that school agreed to provide training materials to the Army Area Schools whenever possible. Little material other than that from the Aggressor Center, was available, for the MI Training Center at Fort Ritchie, MD had been closed at the end of the war.

The need for intelligence in the Reserve Component was once again evident at the outbreak of the Korean Conflict. Many members of the Reserve Component were recalled to active duty, and the fact that only a few had been able to train at an Army Area School soon became evident and these schools grew in importance. They quickly expanded and became known as Intelligence Training Army Area Schools (ITAAS).

In 1950, the Army Ground General School established an Intelligence Department which slowly developed programs of instruction in interrogation, interpretation, photo interpretation, technical intelligence and censorship. These programs were made available to the ITAAS and specialty training for reservists began in earnest although the active component still could not afford to provide ITAAS with any degree of stability or any instructors. As a result the ITAAS continued to use reservists to train reservists in their individual specialties.

Training programs were tailored to the availability of the citizen soldier. Normally, the reservist could receive only two weeks of training each year, often without pay or allowances. Although the ITAAS staff and faculty had to alter the programs of instruction and then teach them, these reservists maintained high standards and would not allow any reservist to say that he completed a specialty course without some assurance that he had learned his skills well.

The ITAAS system grew with each passing year, especially with the establishment of organized Reserve units dedicated to intelligence functions. More and more, members of the Reserve Components required training in basic intelligence skills. The size and duration of the ITAAS expanded until some had staffs and faculties in excess of 100 operating eight to 10 weeks annually.

The involvement of the United States

in hostilities in Southeast Asia, created once again a necessity for an expanding ITAAS system. The Active Component, and the newly established Intelligence Schools for the Active Component, could barely support their own requirements, much less the requirements of a Reserve Component System. With the termination of the Army Ground General School, forerunners of today's intelligence school system continued supplying programs of instruction to ITAAS. While superior in quality, these programs did not always meet training requirements peculiar to the Reserve Components. The ITAAS increasingly relied upon the Active Component for general support, while developing their own individual training programs.

Only in the early 1970's with the reorganization of the US Army under the Steadfast concept, did ITAAS become a focal point of higher Army echelons. It was recognized that programs of instruction and lesson plans, heretofore diverse among the Army Areas, would have to be singularly controlled. The award of a specialty to enlisted or officer personnel in the Reserve Components would have to be controlled by some Active Component institution.

Budgetary constraints and a general lack of knowledge concerning the training of the Reserve Components in military intelligence, precluded the Active Component from doing more than providing general support and monitoring the activities of the ITAAS. With the Steadfast Reorganization and renewed emphasis on Reserve Component activities, the ITAAS system had been in effect for 26 years. The question then asked was "Why tamper with a system that has been such an outstanding success since 1947?"

The answer has been obvious: unless the Active Component is willing to duplicate the ITAAS system, no system can take its place. Improvements to the system can be made; better support can be provided; but the system cannot be replaced.

In 1976, the Active Component, again faced with budget constraints, could no longer keep training material destined for reservists current. Personnel from the Reserve Component were brought on duty for up to six months, to insure that the Reserve Component materials were current and accurate. This program received such attention that in December 1977, the Commandant of the Intelligence Center and School, Brigadier General Albert N. Stubblebine, requested that Colonel Eugene S. Sanford, Chief of Intelligence and Security, First United States Army, establish at the first Office of Reserve Training, Fort Huachuca.

This office was to remain independent of other training and training development activities at the Intelligence Center and School, support the ITAAS and develop programs of instruction and lesson plans to meet the needs of the Reserve Components. In late 1978, the Office of Reserve Training was recognized by TRADOC as an exception to the TRADOC School Model and a similar office was established at the Intelligence School, Fort Devens, MA.

At Fort Huachuca and Fort Devens, the support of Reserve Component training is the primary mission. More than 21 programs of instruction now exist for the Reserve Component and the Intelligence Schools have more than 400 individual lesson plans available for the Reserve Component. These programs of instruction and lesson plans are kept current by selected members of the Reserve Component.

Thirty-two years after their inception, the ITAAS still prevail as the principal training arena for intelligence specialties within the Reserve Component. They still have no TOE or TDA. They are organized annually, without a formal or dedicated budget. They are manned without exception by Reserve Component personnel, and the only formal assignment made annually, is that of the Commandant (appointed by the Army Area commander).

The Intelligence Schools, with their newly established offices of Reserve Training and Reserve Affairs, have helped support the ITAAS system. At Fort Huachuca, Reserve schools have been established on a year-round basis. New training concepts, such as multi-discipline training for officers, have been established and tested. The bulk of Reserve Component training however, is still accomplished at the ITAAS.

In 1979, ITAAS and the Intelligence Schools trained more than 2,600 students within the Reserve Component. The Intelligence Schools provided the ITAAS system more than 10,000,000 pages of printed materials to support training.

Intelligence training may be divided between the Active and Reserve Components, but the United States Army, as one Army, benefits from the successes of both systems.

Trends in MI Reserve Manpower

by LTC Yale Jay Lubkin, USAR

As the man said, we have good news and bad news. The bad news is that the total enlisted strength of the MI Reserve dropped sharply during the past year. The good news is that this leaves us in a much stronger position.

This paradoxical situation is explained by the attached graphs, which are based on data taken from 12 consecutive monthly issues of DCSPER-46, Strength of the Army.

Figure 1 shows that there has been a slight decrease in the number of officers in pay slots. This decrease shows signs of reversing. The decline has been entirely in captain and first lieutenant strength. The number of enlisted men in pay slots has remained almost constant through the year despite the tremendous dip shown in Figure 2. This turned out to be due to a computer error, which also clobbered the food handlers and recorded a large increase in the number of career-field-unknown soldiers. Perhaps some of our MI types went under cover.

The nonpay slots in the Ready Reserve have shown steady improvements in numbers. There was a drop of about 100 company grade officers in the spring of 1978. This shows up in Figure 3, which also shows that there was a steady, if slow, climb in the number of nonpay Ready Reservists beginning around August 1978.

The enlisted nonpay Ready Reserve manpower shows a gratifyingly large and steady climb throughout the year. The total gained 35 percent through the year. This is particularly heartwarming because these men are not receiving drill pay and have no service obligation to wait out. We can assume that they are motivated by patriotism and interest to make their 50 points every year, and to be available when the Army needs them.

The Standby Reserve shows no such increases and the enlisted component of the Standby Reserve was almost wiped out last year. Enlisted strength dropped from 840 to 130 in a year and will possibly be hovering close to the zero mark by the time you read this. The explanation is not hard to find. The last year of the draft was 1972, and at that time people incurred a 6-year service obligation. In 1978, these obligations expired and the people got out of

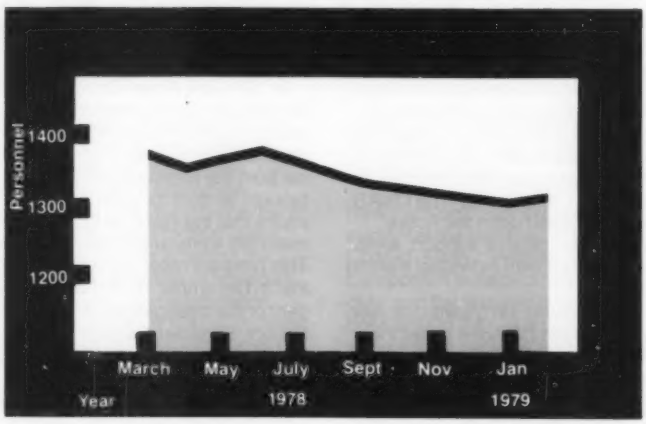


Figure 1. Total MI Officer Strength, MI Ready Reserve - Pay Slots, March 1978–February 1979.

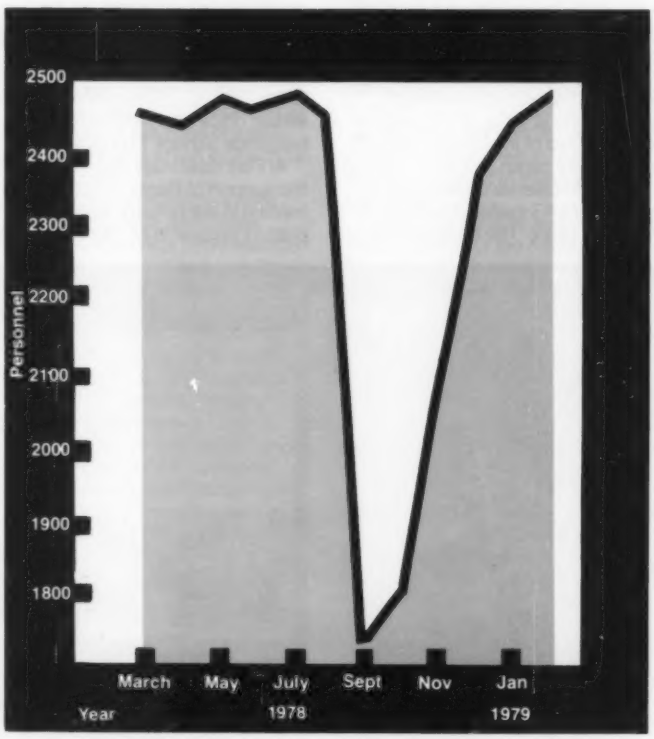


Figure 2. Total Enlisted Strength, MI Ready Reserve - Pay Slots, March 1978–February 1979. *(See note on following page.)*

Note: Apparent sharp drop in strength did not exist and appears to be computer error. Note following data.

	June 78	Sep 78	Jan 79
MI	2,462	1,742	2,466
Food Service	10,146	6,773	9,516
Army Total	152,415	149,890	149,105
Career Field Unknown	1,634	6,239	388

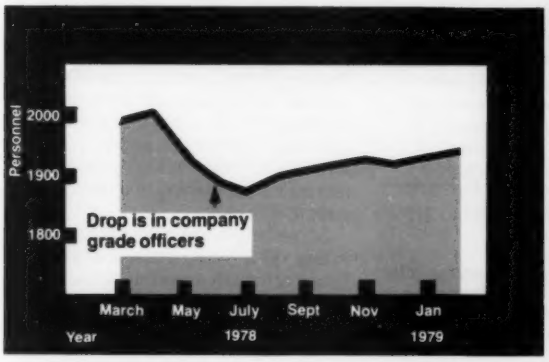


Figure 3. Total Officer Strength, MI Ready Reserve - Non-Pay, March 1978–February 1979.

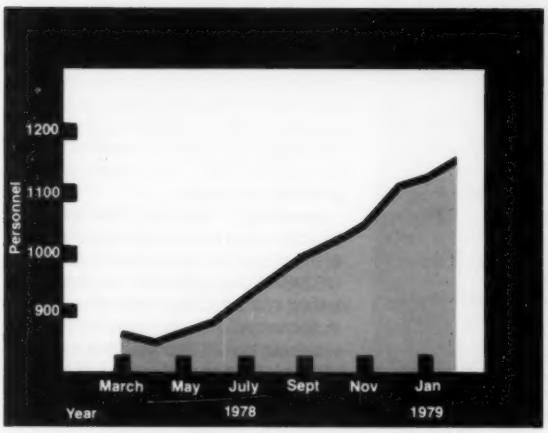


Figure 4. Total Enlisted Strength, MI Ready Reserve - Non-Pay,March 1978–February 1979.

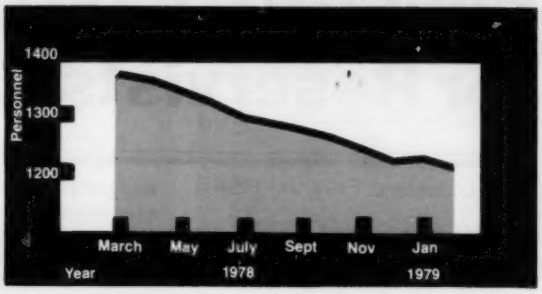
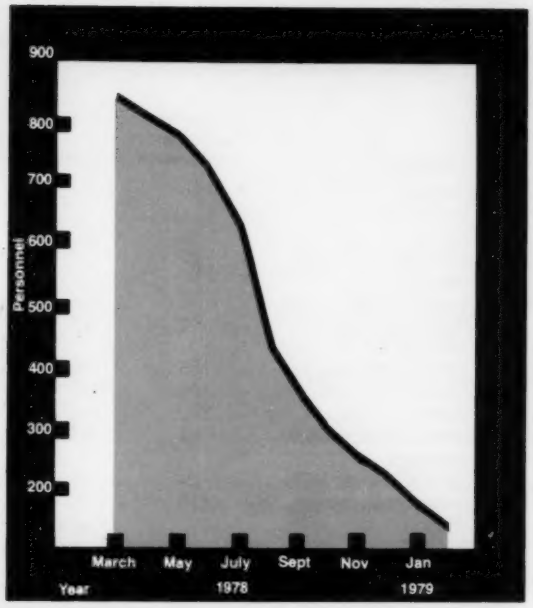


Figure 5. Total Officer Strength, MI Standby Reserve, March 1978–February 1979.



Note: Last draft was in 1972. Obligations expire 1978.

Figure 6. Total Enlisted Strength, MI Standby Reserve, March 1978–February 1979.

the Reserve. Those who were sufficiently interested in the Army transferred to the Ready Reserve, or never left it. Figure 6 shows how the big crunch looks.

The officer strength of the Standby Reserve shows a sizeable decrease, but not nearly as drastic as that of the enlisted strength. Nearly 200 officers left, nearly all of them being company-grade. MI actually did slightly better than the Army as a whole, which had a 14 percent drop in Standby Reserve officers through the year, compared to 13 percent for MI. All enlisted MOS fields showed debilitating losses: infantry down 70 percent, MI down 85 percent, Administration down 90 percent, Air Defense Artillery down over 95 percent with one exception: Recruitment and Retention was down only 42 percent.

There's a message here somewhere.

EW/SIGINT Training for Reservists

by LTC Jesse J. Frey, Jr. USAR

Trained manpower in reserve Electronic Warfare/Signal Intelligence (EW/SIGINT) units is in short supply. Only about 32 percent of the positions in these units are occupied by reservists holding the required Military Occupational Specialtic (MOS). (See Figure 1)

Figure 1. Authorized reserve strengths, current and proposed, EW/SIGINT MOSs; MOS qualification.

MOS	Function	Authorized in Current Organization	Assigned	MOS Qualified	Authorized in Proposed Phase I CEWI Units
37A	Tactical EW/SIGINT Officer	80	69	44	168
05D	SIGINT Identification and Location	15	9	6	98
05G	Signal Security (SIGSEC)	71	46	32	264
05H	Morse Intercept	185	65	43	284
98C	SIGINT Analysis	189	129	73	579
98G	Voice Intercept	370	145	67	681
98J	Non-communications Intercept	64	43	27	312
98Z	SIGINT Senior NCO	24	21	8	61
33S	Intercept Systems Repair	110	90	55	199
Totals		1108	617	355	2646

(Compiled from 1978 survey data from CONUS Army Areas, and **Reserve Component CEWI Project**, 25 September 1978, prepared by the Office of Reserve Training, United States Army Intelligence Center and School, Fort Huachuca, Arizona)

Army Area commanders award EW/SIGINT MOS' to reservists on the recommendation of their commanders with the concurrence of Readiness Region EW/SIGINT advisors. Because of uncertainty and disagreement over what constitutes MOS qualification, at least some of these advisors believe that MOS' have been awarded without adequate training. Even reservists who were once fully qualified may no longer be so. Skills deteriorate from disuse and new skills are required when new equipment is introduced and new methods developed. As this is written, Forces Command is attempting to determine the validity of MOS qualification figures being carried by reserve EW/SIGINT units in the wake of a 1977 study which revealed "serious and extensive deficiencies in the performance of critical skills and training in EW/SIGINT reserve units."[1]

While current reserve units, some 24 Army Security Agency (ASA) companies and 3 ASA detachments, are thinly manned and poorly trained, a dramatic increase in the number of authorized EW/SIGINT positions is planned. Current units are to be reorganized into eleven Combat Intelligence Electronic Warfare Intelligence (CEWI) companies to support separate brigades and armored cavalry regiments, eight CEWI battalions to support the National Guard division and one CEWI group to support a corps. This reorganization means a 139 percent increase in the number of EW/SIGINT positions for just Phase I of the conversion to CEWI, with personnel who are MOS-qualified, on paper, for only about 13 percent of the positions. Phase II of the CEWI conversion calls for nine additional CEWI companies and one additional CEWI group by 1985.[2]

Even in the absence of projected increases, the development of Soldier Qualification Tests (SQTs) in the EW/SIGINT MOS' puts pressure on for MOS qualification and refresher training. Reservists are to be tested one year after their active counterparts. Passing the test at the skill level appropriate to grade will demonstrate MOS qualification; a higher score is required for promotion eligibility. Most EW/SIGINT reservists will probably require further training in order to pass at any level.

Something is being done about this. In late 1977, a program was established at the US Army Intelligence School, Fort Devens (USAISD), MA for training reservists through a combination of two week resident sessions at Fort Devens and extension training at home station.

An Office of Reserve Affairs was established reporting directly to the Deputy Commandant. An element (US Army Intelligence School reserve Training, Devens-USAISRTD), consisting of reserve officers on short active duty tours, was placed under the Office of Reserve Affairs to develop Courses of Instruction through which reservists can qualify in most of the SIGINT/EW MOS' over a period of one to two years.

Reserve Component Courses of Instruction now exist as shown in Figure 2. A course completion certificate from USAISRTD qualifies the candidate for award of the MOS or Additional Skill Indicator (ASI). In the case of those who hold the MOS or ASI but whose skills have gone rusty or out of date attendance at one or more resident sessions at Fort Devens can prepare them for the SQTs.

In the summer of 1978, 230 reservists attended courses at USAISRTD Fort Devens. In 1979, 329 students attended. The USAISRTD class schedule for 1980 is shown in Figure 3. It is anticipated that over 400 students will participate in the 1980 program.

Experience has shown that the expertise of selected reservists is more than ample to provide course development and instruction in EW/SIGINT. In those few instances when a qualified reservist instructor was not available for a course being offered, active component instructors from USAISD filled in, with good results in all cases.

Future developments will depend on

Figure 2. Reserve Component MOS and additional skill courses of instruction.

MOS	Phase I	Phase II	Phase III
37A/98Z	2 weeks USAISRTD	———	———
05G10	34 hours extension	2 weeks USAISRTD	Unit Training Commanders certification
05G20	2 weeks USAISRTD	91 hours extension	———
05H10	64 hours extension	approx 200 hrs. extension	2 weeks USAISRTD
05H20	2 weeks USAISRTD	———	———
98C10	80 hours extension	2 weeks USAISRTD	———
98C20	88 hours extension	2 weeks USAISRTD	———
98G10+20	2 weeks USAISRTD	approx 120 hrs. extension	2 weeks Goodfellow AFB
98J10	2 weeks USAISRTD	2 weeks USAISRTD	65 hours extension
Additional Skills			
5M EW Staff Officer	2 weeks USAISRTD	———	———
K3 Jamming	2 weeks USAISRTD	———	———
COMSEC Custodian (Communication Security)	2 weeks USAISRTD	———	———

Figure 3. USAISRTD 1980 Class Schedule.

14–25 July 80

EW Staff Officer Course (5M)
37A
K3 Jamming Techniques
05H10
05G10
98C10
COMSEC Custodian

28 July–8 Aug 80

EW Staff Officer Course (5M)
37A
K3
05H20
05G20
98C20
98J10 (Phase I)
COMSEC Custodian

11–22 Aug 80

EW Staff Officer Course (5M)
37A
K3
98J10 (Phase II for 1979 Students)
98G10
COMSEC Custodian

funding. Training is needed in MOS 05D (SIGINT Identification and Location) and some of the less common MOS. Skill levels 3 and above need to be taught in the MOS presently addressed. Present courses must be kept current with changes in equipment, doctrine and method. Individualized refresher training needs to be developed. Some extension training may be converted to resident training as an option. Exportable packages for unit training may be developed. Improvement of reserve EW/SIGINT unit readiness, especially with the advent of CEWI, will require that several hundred students attend USAISRTD each summer over the next few years.

USAISD, in conjunction with reservist participation, is ready to meet future challenges in the Electronic Warfare/Cryptologic disciplines. Rest assured that the "One Army" concept is alive and well at USAISD, Fort Devens.

Footnotes

1. Soldier's Manual, FM 30-98C1/2, 1 February 1978, p.ii.
2. Thompson, Major General E. R., Assistant Chief of Staff for Intelligence, remarks at REDTRAIN Working Conference, Arlington Hall Station, Virginia, 22 February 1979.

The Third World War, August 1985, by General Sir John Hackett and Other Top-Ranking NATO Generals and Advisors, MacMillan Publishing Company, Inc., New York; 1978; $12.95; 368 pages.

Though **The Third World War** is fiction, its theme is very real and possible—a military confrontation between NATO and the Warsaw Pact nations.

Sir John presents the world situation in 1984, setting the stage for the conflict between NATO and the Warsaw Pact.

The reader may disagree with Sir John's fictional assessment of the world at that time, but don't let the first two or three chapters of the book discourage you. The author uses modern day tactics and weapons to fight this war. And this is the real strength of the book.

In short, the book discusses issues we read and write about in our service magazines. Some of the topics and items are: FM 100-5; weapons systems—XM-1, IFV, F-111, F-15, F-16 and many more; airpower; seapower; civil defense; use of chemical and nuclear weapons, electronic counter and counter-countermeasures; the Soviet "daring thrust"; sponge tactics; restructuring—heavy or light divisions; plus much more.

This novel will spark your imagination about the world today and the future applications of military power. With the change in government in Iran, unrest in many parts of Africa, and a Catholic Pope from Poland—maybe Sir John knows something we don't?

MAJ John M. Rooney
Resource Analyst,
RMO, USAICS

EPMS – The Years Ahead

With the advent of the 1980s, the formative years of the Enlisted Personnel Management System (EPMS) draw to a close. The system is coming of age, breaking away from the initial problems inherent in any new endeavor. But before EPMS can reach full maturity it must be fully understood by those it serves.

Where does it all begin? What drives the Soldier's Manuals, SQTs, Correspondence Courses, TEC and Institutional training! The answer is "you," the individual soldier and the job you are performing. In the past five years, you've filled out questionnaires, answered surveys and participated in interviews. All this information was compiled by the EPMS personnel at USAICS and USAISD and a Soldier's Manual was developed based on the different critical duties you perform.

So in reality it is not a select few who authored your Soldier's Manual but you and your peers. We at EPMS Branch USAICS and Training Analysis and Design Division, USAISD merely took the tasks that were necessary for battlefield survivability and mission accomplishment and set them to type. The end product, the Soldier's Manual, was then disseminated to the Career Management Fields (CMF). This manual contains much more than the tasks for which you are responsible. There is information on how the manual works and how to order your individual copy, where to write for correspondence courses, how the SQT is designed and administered and, most importantly, what you must accomplish in order to progress from E1 thru E9. In addition, the rear section of the manual has a preaddressed and franked questionnaire. Your comments are not limited to the questionnaire. In fact the EPMS personnel at USAICS and USAISD strongly urge you to comment and constructively criticize the manuals, for without this dialogue, improvements cannot be made.

To better understand how the Soldier's Manuals will assist your career progression and unit proficiency, refer to Figure 1. This schematic shows the relationship of your input from the field to the Soldier's Manual which forms the nucleus of many other activities associated with EPMS. The same tasks listed in the Soldier's Manuals are taught at resident courses within USAICS AND USAISD at the lower skill levels. Further, the SQT is bound by the tasks and references listed in the manuals. Those tasks that are selected for the SQT evaluation are supported by correspondence material and Training Extension Course (TEC) lessons and other references. All this training material benefits you, the soldier. Finally, it all comes together with the ARTEP which, once again using those tasks in the Soldier's Manuals, evaluates the unit of which you are a part.

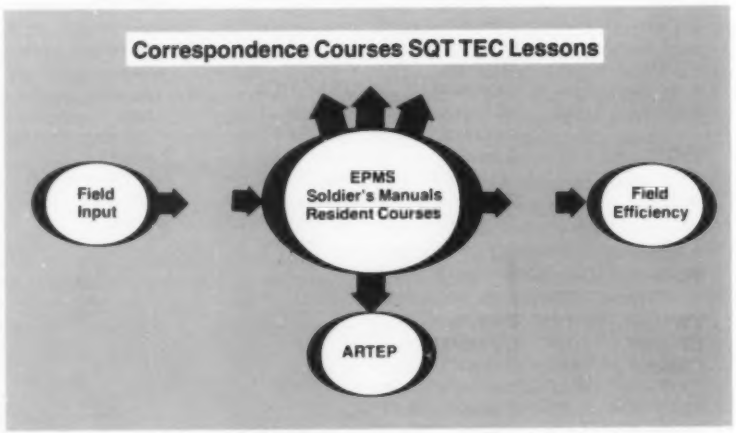


Figure 1

In addition to incorporating your input into the Soldier's Manuals, writing programs of instruction and acting as a focal point for the entire system, your EPMS representative is actively involved in the Enlisted Training Strategy (ETS) program. This entails examining potential MOS mergers, assimilaing new equipment into a particular MOS and identifying where you require training in your career progression and what form that training will take i.e., resident instruction, exportable training, etc.

Realizing "no man is an island" and the responsibilities inherent in making the decisions affecting your career, the EPMS Branch at USAICS and the Training Analysis and Design Division at USAISD want you to fully understand how they are organized and how to contact your MOS representative.

The EPMS Branch at USAICS is divided into three sections composed of MOS teams. They are: the HUMINT section, consisting of MOS teams 96B, 96C and 97B; the Maintenance section, responsible for MOS' 26C, 26E and 26K (MOS 26K is a proposed MOS and is still in the developmental stage); and the Operators section, servicing MOS' 17K, 17M, 96D and 96H.

At USAISD the Training Analysis and Design Division is organized with two branches. Training Analysis Branch is responsible for training analysis and SQT construction, and the Training Design Branch is responsible for manual and SQT production, course design and Test Control Officer interface. This Division is responsible for these products for the 33 and 98 CMF.

As was mentioned earlier, it is imperative that communications between you and your EPMS representative remain open and active. If you do not know who your individual MOS point of contact is, please refer to Figure 8. Any questions you may have regarding

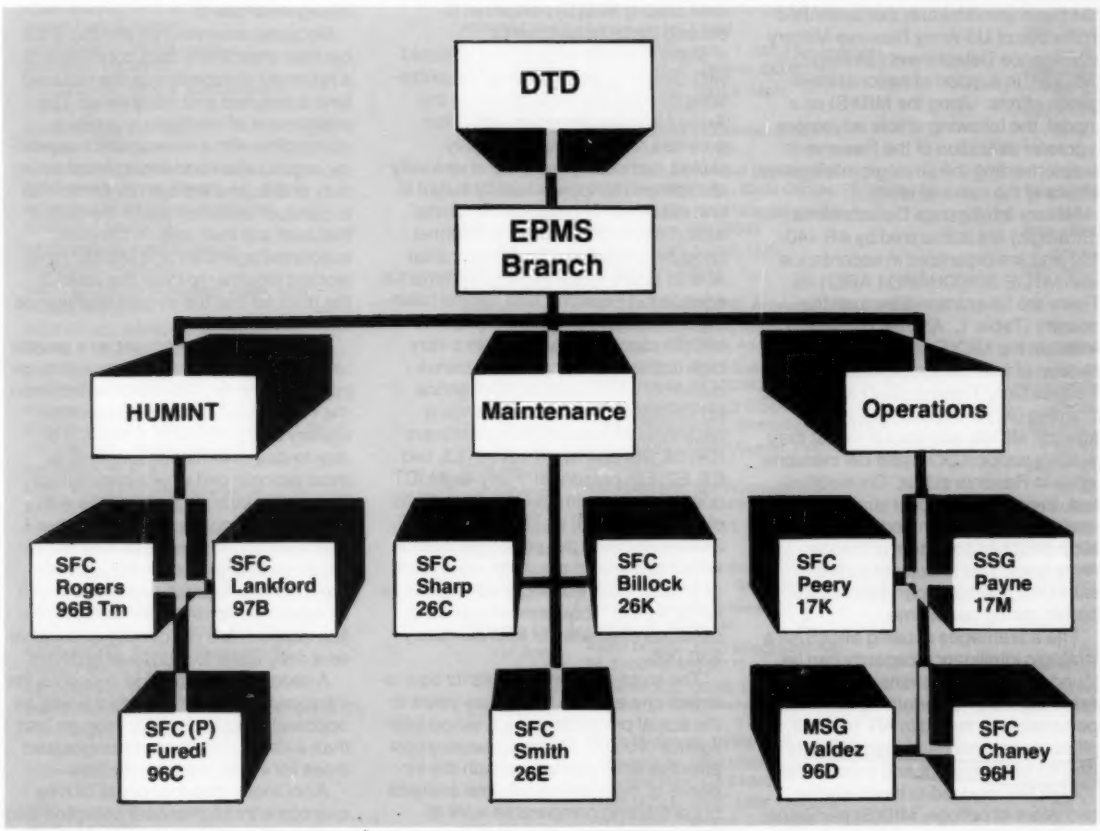


Figure 2

your MOS as it pertains to the Soldier's Manuals or constructive comments you may wish to impart should be directed to your specific MOS representative.

For CMF 96 and the Maintenance MOS mentioned write:

Commandant
US Army Intelligence Center and School
ATTN: ATSI-TD-ITE
(MOS identifier)
Fort Huachuca, AZ 85613

Or call:

Autovon 879-3355 (MOS 96B, 96C, 97B)
-5003 (MOS 26C, 26E, 26K)
-2465 (MOS 17K, 17M, 96D, 96H)

For CMF 33S and 98 write:

Deputy Commandant
US Army Intelligence School, Fort Devens
ATTN: ATSIE-TD-AD
Fort Devens, MA 01433

Or call:

Autovon 256-3634
(Mr. Sullivan)
-3780
(MSG Spence)
-3069
(Mr. Kreiger)

MID(S): Reserve Components in a Strategic Intelligence Role

by LTC G. Lee Southard, USAR

The Reserve is an integral part of the "Total Army" concept. Within the area of strategic intelligence, this concept has been unmistakably demonstrated in the use of US Army Reserve Military Intelligence Detachment (Strategic) [MID(S)] in support of national intelligence efforts. Using the MID(S) as a model, the following article advocates a greater utilization of the Reserve in supplementing the strategic intelligence efforts at the national level.

Military Intelligence Detachments (Strategic) are authorized by AR 140-192 and are organized in accordance with MTOE 30600HARD1 ARO176. There are 58 scattered through the country (Table 1). As their primary mission, the MID(S) engage in the production of finished intelligence during Inactive Duty Training (IDT) and Annual Training (AT) in support of a parent agency. MID(S) are unique in that they actively support DOD and DA missions while in Reserve status. On mobilization, they are to conduct strategic intelligence research and analysis in support of headquarters at theater Army level. This is likely to be the same intelligence organization supported during peacetime.

The advantages of using MID(S) in a strategic intelligence capacity can be found in the qualifications set out by Army regulations pertaining to MID(S) personnel. As stated in AR 140-192, officer personnel must hold a master's degree or equivalent and enlisted personnel are required to have at least two years of college. MID(S) personnel must meet at least one of the following qualifications: 1) they must work or study in a discipline closely related to the intelligence activity; 2) they must be able to read, speak and comprehend a foreign language appropriate to the geographical or technical area for which the unit is constituted; 3) they must be qualified as an imagery interpreter; and 4) they must be qualified by experience or study in one or more fields related to the unit mission.

AR 135-11 designates all officer personnel as Foreign Area Officer/Reserve Component (FAO/RC) positions. In addition, the regulation assigns responsibilities and prescribes policy and procedures governing selection, training and career utilization of participants in the FAO/RC program. Collectively the requirements of AR 140192 and AR 135-11 are among the most stringent found in the US Army. It is common among MID(S) personnel to exceed these requirements.

Many Reserve MID(S) are affiliated with civilian or governmental organizations through the Department of the Army Affiliation Program. Affiliation provides ready sources of highly skilled, technically expert and specially disciplined manpower ideally suited to unit missions. Through occupational associations, these same personnel bring perspectives not normally available to active military and governmental agencies. Therefore, with careful tailoring of intelligence requirements to an MID(S) capability, there exists a very high capacity to enhance the transformation of information to intelligence. MTOE30600HARD1 establishes a personnel allowance of three officers (04, 05, 06) and five enlisted (E5, two E6, E7, E8) personnel. Forty-eight IDT drills and approximately 14 days AT for eight man MID(S) yield a minimum of 2400 man hours per year. This is equivalent to one and a quarter man-years of an individual working a 40-hour week for 52 weeks. Total annual operating costs are estimated at approximately $30,000.

The eight-man unit applies its equivalent of one and a quarter man-years to the actual production of a finished intelligence product. This may be very cost effective when compared with the expense of maintaining full-time analysts or contracting comparable work to private concerns.

Another advantage to using the Reserve in a strategic intelligence capacity becomes evident when manpower levels are decreased in the primary DOD and DA intelligence agencies. Reserve MID(S) provide a means of maintaining productivity without counting against supported agencies' manpower levels. Thus, supported agencies are better able to accomplish their mission during such times.

Assignments of active component personnel to strategic intelligence missions are not permanent. Normal rotation, reassignments and relocations, while indispensable for developing "the complete soldier," create and contribute to discontinuity of the intelligence effort. Conversely the stable and more permanent nature of Reserve MID(S) provides a continuity of effort and depth of knowledge which improves intelligence quality.

Because reserve units are more stable than their active duty counterparts, a reservoir of expertise in the required field is assured and maintained. The assignment of intelligence projects compatible with a reserve unit's capability, organization and timing frees active duty and supported agency personnel to conduct and emphasize the duties that best suit their role. In the past, supported agencies and MID(S) have worked together to tailor the tasks to the units so that the overall intelligence effort benefits.

There are disadvantages to a greater reliance upon the Reserve in a strategic intelligence role. The distance between the home station and the supported agency can give rise to problems of day-to-day communication. This is most pronounced where communication would normally be possible with other intelligence personnel in other agencies and in peripheral and allied areas. In addition, stationary government and intelligence resources (such as reference libraries and documentation support) are not directly accessible on a daily basis to individual analysts.

A second disadvantage concerns the infrequency of inactive duty training as opposed to daily duty. Meeting on less than a daily basis leads to longer lead times for intelligence production.

All of these disadvantages can be overcome through proper selection and organization of an intelligence mission for Reserve MID(S) where the disadvantages are minimized. For example, statements of intelligence interest (SII) are filed during ADT so that information and documentation support can continue through the year. In addition, intelligence missions are assigned which have an urgency that is compatible with an AT when the MID(S) and supported agency come together.

In conclusion, this discussion has centered on an existing program employing MID(S) in a strategic intelligence role. The benefits that the program offers are worthy of consideration by intelligence planners concerned with the quantity and quality of intelligence

assessment and production. The satisfaction that the Army has experienced with the quality and expertise presented by the MID(S) program would suggest that other intelligence needs might be met by expanding the program within the Reserve structure. Thus the MID(S) provide an existing and working model system for expanding the use of the Reserve in a strategic intelligence role and further optimization of the Total Army concept.

Table 1. Military Intelligence Detachment (Strategic) Units by Supported Agencies

UNIT/ADDRESS	AA ARCOM
Defense Intelligence Agency	
308th MID(S), 3938 Old French Rd., Erie, PA 16504	*1st Army* 99th ARCOM
401st MID(S), 4510 Snouffer School Rd., Gaithersburg, MD 20760	*1st Army* 97th ARCOM
408th MID(S), 7402 W. Roosevelt Rd., Forest Park, IL 60130	*5th Army* 86th ARCOM
409th MID(S), 2562 Avery Ave., Memphis, TN 38112	*1st Army* 121st ARCOM
417th MID(S), 4900 S. Lancaster Rd., Dallas, TX 75216	*5th Army* 90th ARCOM
420th MID(S), Box 223, Amherst, MA 01002	*1st Army* 76th Tng Div.
421st MID(S), Boston Army Res. Ctr., 666 Summer Street, Boston, MA 02210	*1st Army* 76th Tng Div.
423d MID(S), 26402 W. 11 Mile Rd., Southfield, MI 48034	*5th Army* 123d ARCOM
446th MID(S), 6482 Aurelia St., Pittsburgh, PA 15206	*1st Army* 99th ARCOM
448th MID(S), 3130 George Wash. Blvd., Wichita, KS 67210	*6th Army* 89th ARCOM
453d MID(S), AFRC, Ft. Wadsworth, Staten Island, NY 10305	*1st Army* 77th ARCOM
462d MID(S), 8510 Snouffer School Rd., Gaithersburg, MD 20760	*1st Army* 124th ARCOM
465th MID(S), Libby USAR Ctr., 200 Wintergreen Ave., New Haven, CT 06515	*1st Army* 76th Tng Div.
477th MID(S), 1301 South St., LaFayette, IN 47901	*5th Army* 123d ARCOM
479th MID(S), USAR Reserve Ctr., 3701 Corrine Dr., Orlando, FL 32803	*1st Army* 81st ARCOM
480th MID(S), 520 Woodcrest Dr., Bloomington, IN 47401	*5th Army* 123d ARCOM
481st MID(S), Ft. Wadsworth AFR Ctr. Staten Island, NY 10305	*1st Army* 77th ARCOM
484th MID(S), Lincoln Stoddard Armory, 25 N. Lake Ave., Worcester, MA 01604	*1st Army* 76th Tng Div.
486th MID(S), 7402 W. Roosevelt Rd., Forest Park, IL 60130	*5th Army*
487th MID(S), Hulsman USAR Ctr. 25445 Harvard Rd., Warrenville Rt., OH 44122	*5th Army* 83d ARCOM
488th MID(S), 4900 S. Lancaster Rd., Dallas, TX 75216	*5th Army* 90th ARCOM
698th MID(S), 1355 N. 200 West, Provo, UT 84601	*6th Army* 96th ARCOM
837th MID(S), 511 Carson St., Bryan, TX 77801	*5th Army* 90th ARCOM
Office of Surgeon General, Ft. Detrick, MD	
400th MID(S), 2625 Kessler Blvd., (N. Drive) Indianapolis, IN 46222	*5th Army* 123d ARCOM
402d MID(S), 2625 Kessler Blvd., (N. Drive) Indianapolis, IN 46222	*5th Army* 123d ARCOM
424th MID(S), Ft. Dearborn US Army, Reserve Ctr., P.O. Box 66484, Chi., IL 60666	*5th Army*
ODCSI, USAREUR, Heidelberg, Germany	
403d MID(S), 3220 USAR Garrison, 2901 Tuxedo Ave., W. Palm Beach, FL 33405	*1st Army* 81st ARCOM
404th MID(S), 8510 Snouffer School Rd., Gaithersburg, MD 20760	*1st Army* 97th ARCOM
405th MID(S), Bldg. T-332, Fitzsimmons General Hosp., Denver, CO 80240	*6th Army* 96th ARCOM
407th MID(S), US Army Reserve Ctr., 2005 Richmond Rd., Williamsburg, VA 23185	*1st Army*
443d MID(S), 551 Carson St., Bryan, TX 77801	*5th Army* 90th ARCOM

UNIT/ADDRESS	AA ARCOM
INSCOM, ITAC/GIPD, Ft. Bragg, NC	
411th MID(S), 1900 Hurtel St., P.O. Box 5037, Mobile, AL 36605	*1st Army* 121st ARCOM
416th MID(S), 1705 Mileground Rd., Morgantown, WV 26505	*1st Army* 99th ARCOM
425th MID(S), McConell USAR Ctr., Liverpool, NY 13088	*1st Army* 98th Tng Div.
440th MID(S), Bldg. T-332, Fitzsimmons General Hosp., Denver, CO 80240	*6th Army* 96th ARCOM
449th MID(S), 2001 E. Main, Urbana, IL 61801	*5th Army* 86th ARCOM
454th MID(S), McConnell USAR Ctr., Liverpool, NY 13088	*1st Army*
466th MID(S), Kendall USAR Ctr., 5601 San Amaro Dr., Coral Gables, FL 33124	*1st Army* 81st ARCOM
470th MID(S), 1705 Mileground Rd., Morgantown, WV 26505	*1st Army* 99th ARCOM
474th MID(S), 2110 S. Duff, Ames, Iowa 50010	*5th Army* 88th ARCOM
INSCOM, ITAC/CIPD, Arlington Hall Station, VA	
415th MID(S), University of Michigan, 1980 Industrial Hwy, Ann Arbor, MI 48104	*5th Army* 123d ARCOM
428th MID(S), 8510 Snouffer School Rd., Gaithersburg, MD 20763	*1st Army* 97th ARCOM
433d MID(S), Outcolt USAR Tng. Ctr., 11880 Mosteller Rd., Sharonville, OH 45241	*5th Army* 83d ARCOM
442d MID(S), USAR Center, Columbus, OH 43215	*5th Army* 83d ARCOM
445th MID(S), 520 Woodscrest Dr., Bloomington, IN 47401	*5th Army* 123d ARCOM
450th MID(S), 1913 S. Riverside Dr., Iowa City, IA 52204	*5th Army* 88th ARCOM
467th MID(S), Gainesville USAR Ctr., 1125 NE Eight Ave., Gainesville, FL 32601	*1st Army* 81st ARCOM
468th MID(S), 2100 Iowa St., Lawrence, KS 66044	*6th Army* 89th ARCOM
469th MID(S), 1705 Mileground Rd., Ft. Snelling, MN 55111	*1st Army* 88th ARCOM
471st MID(S), USAR Tng. Ctr., USAR Ctr. 2940 Airport Rd., Bethlehem, PA 18017	*1st Army* 79th ARCOM
500th MI Group, Camp Zama, Japan	
419th MID(S), 1776 Middlefield Rd., Mountain View, CA 94040	*6th Army* 124th ARCOM
478th MID(S), Bldg. 1086, Oakland Army Base, Oakland, CA 94626	*6th Army*
AWC, Carlisle Bks, PA	
432nd MID(S), Ft. Wadsworth USAR Ctr., Staten Island, NY 10305	*1st Army* 77th ARCOM
434th MID(S), Libby USAR Ctr., 200 Wintergreen Ave., New Haven, CT. 06515	*1st Army*
439th MID(S), 8310 Snouffer School Rd., Gaithersburg, MD 20760	*1st Army* 97th ARCOM
IPAC, Camp H. M. Smith, HI	
458th MID(S), Golden Gate Res. Ctr., Bldg 316, Presidio of SF, CA 94129	*6th Army* 124th ARCOM
Foreign Science and Technology Ctr., Charlottesville, VA	
476th MID(S), USAR Tng. Ctr., 2625 Kessler Blvd., (N. Drive) Indianapolis, IN 46222	*5th Army* 123d ARCOM
490th MID(S), USAR Tng. Ctr., Ft. Ethan Allen, Winooski, VT 05404	*1st Army* 76th Tng. Div.

How the EW Threat is Improving Our Communications

by MAJ Jerry F. Pickar

Before the 1973 Middle East War, the Army was continuing to treat electronic warfare (EW) as an "also-ran" in the weapons system priority race. The 1973 War vividly portrayed conventional warfare as quick, violent and sophisticated. Moreover the United States realized that limited, conventional war was a distinct possibility that we must be prepared to face. As a result, the United States' military strategy gradually moved from a strict nuclear deterrence strategy, followed under the policy of mutual assured destruction (MAD), to a strategy that included the capability to fight a conventional land war with the Army being the primary component.

The United States had previously placed EW emphasis on protecting the Air Force and Navy tactical and strategic platforms. As a result, the Army had the lowest priority and the greatest electronic warfare deficiency of all the services. The Army's low priority had left it scrambling for a few new conventional weapon systems while trying to meet manpower levels. Certainly the Army did not improve its EW posture during this period. When the choice was between a gun system and a jammer, the gun system won every time. In sum, the Army was thrust into a face-to-face confrontation with the modern electronic battlefield, and it was not prepared. In the more than six years since the 1973 War, the Army has realized the importance of safeguarding its use of the electromagnetic spectrum and EW has moved to a "front runner" position where it is being integrated into the Army's overall tactical operations and doctrine.

Historical Perspective of Army Electronic Warfare

In World War I, World War II and the Korean War, the Army established its emphasis on signal intelligence (SIGINT), particularly on the communications intelligence (COMINT) segment of SIGINT. Defensive EW was only communications security (COMSEC), trying to prevent the enemy from understanding friendly radio traffic. Jamming was not considered a worthwhile endeavor when the enemy's traffic could be intercepted, understood and used for intelligence purposes. This position was understandable considering the relatively small number of radio communications and the tactical advantage gained from the message traffic that was being intercepted.

In South Vietnam, the Army placed total priority on SIGINT and direction finding (DF). In the rare cases where jamming was used, it was to augment our SIGINT capability. In South Vietnam, the Army had a multitude of combat multipliers (bombs, guns, helicopters, aircraft, etc.) and EW was not thought of as a necessary combat multiplier. Furthermore, defensive EW, including COMSEC, was not practiced because there was no perceived threat posed by the unsophisticated enemy. However, that enemy did use EW and the results impacted heavily on all friendly forces. The Air Force had to apply immediate self-protective EW measures to save their plans from the enemy. For several years, the Army continued to operate without regard for EW while the enemy exploited US tactical communications. The classical case of the enemy's Alpha 3 intercept element and the classic near total compromise of the 1st Division's activity provides a typical example of our total disregard for EW.

The Army completed a 180 degree turn with regard to COMSEC in just over 20 years. COMSEC, once a top priority practice and concern of all commanders and communicators (violations of which were punishable under UCMJ), was not wantonly disregarded by the entire chain of command. The cause was a combination of a vast increase in radio availability, lack of a perceived threat, untrained operators, direct supervisor use of radios, and the requirement for constantly coordinated action through several echelons of command. As the Vietnam War was ending, nothing had changed within the Army to preempt COMINT and DF from their top priority or to place any priority whatsoever on defensive EW. The Army did not acknowledge the importance of EW, either offensive or defensive, as a valid and necessary combat multiplier until the 1973 Middle East War demonstrated the vulnerability of our necessary use of the electromagnetic spectrum.

Where were Army SIGINT/EW units during this critical phase of development? The Army Security Agency (ASA) was a "stovepipe" organization with elements scattered worldwide performing both tactical and strategic missions. ASA was sponsored by the National Security Agency whose mission was strategic Signal Intelligence (SIGINT) and Communications Security (COMSEC). There was no push (outside the intelligence community) to develop the other aspects of EW in the Army. The ASA organization had kept the Army's low priority on EW away from the mainstream of the Army and had actually prolonged the problem. The 1973 War was one of the catalysts that ultimately facilitated a complete review of the Army's intelligence support concept. The result was the Intelligence Organization and Stationing Study (IOSS) concluded in 1975. Part of the study called for Combat Electronic Warfare and Intelligence (CEWI) units to be created in Corps, Division, Separate Brigade and Regiment. Existing ASA and Military Intelligence (MI) units were to be used as the base from which to build CEWI units. In addition to integrating EW with tactical intelligence support, the CEWI concept was the first major step in getting EW recognized as a tactical problem and in creating tactical EW management expertise.

Is Hardware the Solution?

While technology has advanced rapidly since World War II, the basic concepts of jamming and defensive EW have not changed. Certainly, the mechanisms used to perform the various offensive and defensive EW missions had become sophisticated electronic devices but they either generally radiate energy or react to the same. The concept of avoiding enemy electronic interference (jamming) and exploitation (location) by use of natural and manmade features is still the basic premise. Even advanced US technology cannot produce electronic devices that are immune to enemy exploitation for very long. Other measures (defensive EW) will always be required to enhance our communications and the resultant combat effectiveness.

There is a wide variety of ongoing research and development projects

delving into jam-resistent communications systems. One of the Army's programs is called SINCGARS-V. Anti-Jam (AJ) devices employ various technologies. One type automatically changes net frequencies and then sets all radios to the new frequency. Another type uses a predetermined automatically changing sequence of frequencies which are synchronized for all net stations. These devices are divided according to the rate of frequency change and, of course, increasing cost. Slow Frequency Hoppers (SFH) are those that change to a new frequency a few times per second. Fast Frequency Hoppers (FFH) change net frequencies several times a second. The most secure and expensive option uses the spread spectrum technique in which the signal is spread over a wide band (10 MHZ) and then reconstituted at the receiver into its original narrow band. Modern technology can now build these systems in manpack size. This technology would not necessarily make transmissions secure, but enemy intercept, DF and jamming would certainly be made much more difficult and expensive. Cost effectiveness will play a major role in any eventual tactical applications of this technology.

Other technology that would improve our communications security and effectiveness have been under test and development for years. Transmission of hard-copy message via tactical communications using FACSIMILE has some tactical advantages as do burst transmissions and digitized speech. Directional antennas have been tested for more than a decade without being adopted for tactical use. The Army now has several EW systems in various phases of test and development but we still conduct tactical operations with Korean war vintage equipment.

A quick glance at the most probable enemy EW threat facing a US division in Europe tells us that we are far behind in numbers of EW equipment as well as degree of emphasis on the value of EW as a combat power multiplier.

We are taking steps to close the gaps although the most optimistic forecasts of US equipment acquisitions still leave us far behind in EW equipment quantity. The "quality" argument comparing US and Soviet EW equipment develops along the same lines as the M60A1-62 equation. In both cases, massive Soviet quantity overcomes a professed US edge in quality. Further trends in EW equipment can also be argued along the same lines as the tank comparison. Knowing the Soviet emphasis on EW, new product-improved EW equipment is probably following the same route to massive deployment as are the T64/T72/T74 tanks. In sum, new EW hardware may help but it will not solve our overall communications problem.

What action is left for the Army to take to complement the limited hardware solutions to our communications problems? In the truest sense of the "American way," we must do our best with what is available. Major tactical exercises are proving that we can operate on the modern electromagnetic battlefield using our current communications equipment provided we have conducted extensive planning and training and, most importantly, the commander pushes it.

Communicate Effectively in an EW Environment

The Army's tactical military capability depends upon effective radio communications. Tactical radio communications can be complemented by other communications means such as courier, wire, flashing lights, pyrotechnics, flags, mirrors and smoke, but they cannot be replaced by them, especially on today's highly mobile battlefield.

Electronic warfare, once thought to be a highly complex and technical area and shrouded in mystery has, through an extensive Army-wide education program, become part of most tactical operations. A few units have produced the necessary EW environment in which to train and they have benefited greatly from the experience. They have set the example on how to conduct realistic tactical training that will prepare units for combat in an EW environment instead of giving lip service to the ARTEP evaluation requirement for operating in an EW environment.

Given current equipment constraints, knowing and training in good defensive EW practices are important aspects of gaining and maintaining effective communications. Even if we had the most futuristic means of communication, training would probably still be the most important aspect of communicating. Training develops coordination, familiarity and efficiency. Communications training is not a part-time project. It must be pursued full-time and under conditions of varying degrees of EW intensity. Lax operation of a garrison administrative FM net will lead to similar practices during tactical conditions when pressure to communicate is much higher. Good communication and defensive EW procedures start from the top.

The 2d Armored Division, Fort Hood, Texas, conducted an intensive communications training program prior to JTX Gallant Crew '77. Training (using FM 32-20 as a guide) was conducted at all levels of command. Tactical units were assisted by assigned Operations Security (both COMSEC and Counterintelligence) personnel. The 2d AD's motivation came from its anticipation of the opposition to be provided by the across-post rival, the 1st Cavalry division, augmented by the largest array of EW equipment ever assembled for training or actual battle.

The 2d AD's newly formed 522d CEWI Battalion was tested during this exercise and provided the countering EW force. Although outnumbered 5:1 in jamming power, the 522d CEWI Bn had, in a little more than four months, become part of the 2d AD. Its subordinate elements were integrated into the maneuver forces through constant association and professional respect. The 522d CEWI Battalion's organization and the significance of the opposing

Soviet/US EW Equipment Comparison
(Soviet CAA vs. US Div)

	ESM		ECM	
	COMM	NON-COMM	COMM	NON-COMM
USSR	58	25	45	11
US	12 [1.] [3.]	3 [2.]	6 [1.]	0 [4.]
Totals	−46	−22	−39	−11

	Test FY
1. Quick Fix w/DF: 3-EH1H/Div	1981
2. Quick Look II: 6-OV1D/Corps	1978
3. Trailblazer: 1 set (3-Stations)/Div	1978
4. MULTEWS (Abn): 3-EH1H/Div	1981

force's EW threat created a healthy training environment in the 2d AD. FM communications security was stressed, but the overall concept of defensive EW—doing everything possible to protect friendly communications—was also present. The use of directional antennas, terrain masking of antennas, radio silence, absolute minimum transmissions and transmission time, remoting antennas, MIJI reports and alternate means of communication was stressed. These techniques were practiced with varying frequency and effectiveness prior to the actual field exercise and the overall defensive EW capability of the division had certainly not reached its peak. Prior to the exercise, however, communicators and supervisors were familiar with good communication procedures and defensive EW techniques. Though not sufficiently practiced to perform up to their potential, the 2d AD was judged as the best trained division in the Army for fighting in an EW environment. The 2d AD's high degree of success operating in a fairly realistic EW environment proves the necessity of good planning and training in effectively countering offensive EW as we strive to maximize the use of the electromagnetic spectrum in order to most effectively command and control forces.

Defensive EW Tactics

Defensive EW is often (mistakenly) considered to be a list of common sense procedures and techniques. Not so! Extensive lists of techniques are available in several manuals, especially FM 32-20, but none of them are all-inclusive because the definitive answer is not in yet. More is being learned about defensive EW all the time. Proficiency in defensive EW is not easy to master and must be maintained through constant training. Training a unit in defensive EW is a demanding task that, when accomplished, will magnify that unit's survivability and combat effectiveness!

Remember that defensive EW techniques must be blended together, practiced and learned as doctrine in order for a unit to be effective. The overall concept of defensive EW must be adopted and practiced in order for our defense to stand up against a larger offensive. In football, a good defense can shut down a good offense: that must be our goal.

Conclusion

We will probably never see cost-effective anti-jam (AJ) equipment deployed to maneuver unit level to allow us to operate free of enemy exploitation. Our only choice is to make the best possible use of our currently deployed communication and EW equipment. Training presently being conducted in some of our tactical units has been successful in attaining operational effectiveness in a realistic EW environment. Given the necessary command emphasis, planning, and training, the EW threat will have helped us improve our ability to communicate effectively in spite of a hostile EW environment that can be expected on today's battlefield.

Professional Reader

Response to Imperialism: The United States and the Philippine-American War, 1899–1902,
by Richard E. Welch, Jr.,
University of North Carolina Press, Chapel Hill, NC, 1979,
215 pp. No price listed.

Response to Imperialism: The United States and the Philippine-American War, 1899–1902, examines the reaction to the Philippine-American War as expressed by various components of American society at the turn of the century. Rather than a history of the insurrection, Welch establishes the framework of the war in his initial chapter and then devotes the bulk of the book to examining American opinions and reactions to this country's first overseas imperialistic adventure. In addition to examining American response to the war Welch considers what parallels, if any, exist between the Philippine War and the Vietnam War over 50 years later.

The author established first that there was a distinct separation, in the eyes of most sectors of American society, between the Philippine War and the US policy of assuming sovereignty over the Philippine archipelago. Thus while the policy was subject to often bitter controversy, the military operations surrounding the war were only rarely attacked. This of course contrasts with the circumstances surrounding US operations in Indochina.

Leading the opposition to US policy in the Philippines was a loosely-knit coalition of organizations led primarily by the Anti-Imperialist League. Welch examines the role and leadership of this organization in some detail, and relates its activities to various components of society as a whole. He devotes separate chapters to examining the positions and policies of political parties, business and labor, organized religion, minority groups, and the press. The reader is led to the conclusion that these varying groups lacked full information on conditions and activities in the Philippines and also lacked a cohesive policy toward the war and American policy. Major opinion makers were unable to galvanize the American people to action, and were unable to forge any sort of significant alliance between the press, political leaders, and other community leaders in opposition to US policy.

While the war as a direct result of policy, became unpopular, it was never subjected to the kind of opposition experienced during the Vietnam era. Welch also concludes that this first experience in overseas aggrandizement did not form a precedent for the general conduct of US policy in later years and that the Philippine experience did not serve as a negative example for later foreign policy critics to use with any degree of viable argument.

The book is a good study of the components of public opinion during an easily-measured period of modern American history, but cannot (as the author points out) be considered as a history of the conflict itself. To be most valuable to a serious student of this era of American history, Welch's book should be consulted only after achieving firm knowledge of the military aspects of the Philippine Insurrection. In that context, the book serves as an excellent addition to literature of the period.

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The Strategic Situation In Northern Europe: Improvements vital for NATO

Reprinted with permission from International Defense Review

by R.D.M. Furlong

Conclusion

External reinforcements

The national forces in AFNORTH, with the possible exception of those in Schleswig-Holstein, are plagued by shortages of manpower and equipment relative to the increasingly strong threat facing them and are almost totally dependent on the rapid arrival of allied reinforcements if they are to put up a viable defense for more than a week or so. For fairly obvious reasons, however, SACEUR prefers to refrain from committing his strategic reserves too early and is unwilling to pre-allocate specific forces to specific areas. This has drawn criticism in both Denmark and in Norway, where a senior general told the *IDR* that SACEUR "will have to shift his emphasis a little from the Central Front."

SACEUR does, in fact, have quite a number of reinforcement options for Europe, and is likely to keep these open for as long as he can in anticipation of Warsaw Pact offensives anywhere in the theatre. The main problems in reinforcing Northern Europe—apart from the need for secure lines of communication and intact reception ports and airfields, if reinforcements are to arrive at all—are their availability in sufficient numbers, speed of reaction, suitability for the type of operations needed, integration with local forces, effective logistics and secure and efficient forward routing to deployment areas.

"The top priorities in AFNORTH," according to the outgoing CINCNORTH, Gen. Sir Peter Whiteley, "are air defense and getting reinforcements in time." This translates into a requirement for the first external units to arrive to be air-defense aircraft, preferably all-weather types which the F-16, in its present configuration, is not. The extra fighters are desperately needed to protect the transport aircraft and ships bringing in further reinforcements, as well as the reception ports and airfields. In North Norway, for instance, the only fighters are the *Sidewinder*-armed F-104Gs at Bodo and these are being replaced by similarly-armed F-16s. The 40 *Roland II* SAM systems which the Norwegian Air Force has ordered will provide low-level protection for only four or five airfields.

North Norway also presents two extra problems. The first is that the designated reception ports and airfields there simply cannot cope with the flow of reinforcements required, although plans are in hand to expand, and add reception facilities to, an extra airfield.

The second problem is that any front-line units which are sent into the Arctic (i.e. Bodo northwards) without MAW training are worse than useless in winter. To be effective in the Norwegian winter, infantry reinforcements need to be ski-mobile and to have special oversnow vehicles. Troops on snowshoes move too slowly and lack flexibility, but can be used in rear areas. To speed their arrival, it is considered essential that reinforcements to North Norway pre-stock their special MAW equipment in the country. However, if the equipment differs from that used by the Norwegians, this will pose problems of care and maintenance, since only Norwegian caretakers can be employed due to the policy of not allowing foreign troops to be stationed permanently in the country. A possible solution may be to send Norwegian caretakers on special training courses.

The same approach could be adopted to speed reinforcement of Denmark although, as is the case with any pre-positioning of equipment, it requires that specific units (or at least specific types of unit, with similar organizations and equipment holdings) are designated in advance for operations in the area. Denmark is willing, and some stockpiling arrangements for US equipment have already been made.

There are, in fact, only two major non-Norwegian combat formations among the potential reinforcements which are already fully MAW-trained. These are the British 3 Commando Brigade, Royal Marines, with its integrated Royal Netherlands Marine Corps MAW company, and the Canadian Air/Sea Transportable Brigade Group (CAST Bde Gp). In addition, the Italian Alpini battalion and Canadian and British Army battalion components of NATO's brigade-strength ACE Mobile Force (Land), when it is committed to Norway, are generally MAW-trained, as are about two companies of the US Marine Corps' Second Marine Amphibious Brigade (2 MAB), which is a component of the division-strength Second Marine Amphibious Force (II MAF) based in North Carolina. This last also includes one more brigade in reserve (4 MAB), as well as an Air Wing of 225 combat aircraft and 175 helicopters. Last year, 4 MAB took part in joint NATO amphibious exercises in the Shetland Islands *(Northern Wedding)* and Jutland/Schleswig-Holstein *(Bold Guard)*, whilst 2 MAB is generally embarked with the UK's 3 Commando Brigade (the latter in British ships) as the amphibious element of SACLANT's Maritime Contingency Force Atlantic (MARCONFORLANT).

The problem with the highly trained amphibious reinforcements is that, if they are to exploit their full potential, they need to retain the flexibility of helicopter, landing craft and logistic support facilities provided from their helicopter carriers. In the case of the armour-equipped USMC, these ships must generally cross the Atlantic, whilst the more lightly-armed British Royal Marines are being increasingly deployed by air, since they have seen their four larger amphibious warfare ships all either decommissioned, converted to the ASW role or allocated for sea training of Royal Navy midshipmen by successive UK defense cuts. In a 1976 exercise in Norway, they had to use Norwegian-owned civilian car ferries to bring them from the UK. It

is to be hoped that the four amphibious support ships ordered by Iran, and now building in the UK, will go instead to the Royal Marines to supplement their newly modified Royal Fleet Auxiliary as part of an immediately on-call amphibious task group.

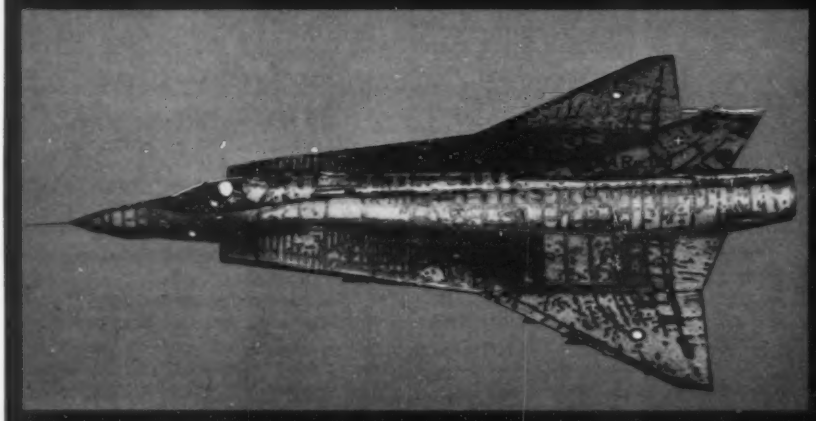
The AFNORTH staff is hopeful that, with the USMC "looking for a job" since Vietnam, the whole of II MAF will be committed to the Northern Flank. The entire division does have contingency plans for BALTAP, but it is recognized as being unlikely that more than 2 MAB will be MAW-trained and that 4 MAB may have to respond to Southern Flank requirements. AFNORTH received some encouragement from Harold Brown's senior adviser on NATO affairs, Robert Komer, when in early 1978 he told a US congressional House Defense Appropriations sub-committee that "it is in some respects an ideal area to use the US Marines on the Northern Flank. I personally believe they are more needed there than in the centre." According to US press reports, this was followed in July 1978 by a secret Program Decision Memorandum from US Deputy Secretary of Defense Charles Duncan to Secretary of the Navy William Claytor, directing the USMC to plan for the "rapid reinforcement of Norway with an airlifted, brigade-sized force," and to count on prepositioning of selected equipment in Norway. Since the UK 3 Commando Brigade is already pre-stocking in Norway, it would thus appear that they and 2 MAB are likely to be airlifted into the far north, assuming some airfields survive, as the first ground force follow-up to the NATO flag-showing ACE Mobile Force.

An accurate picture of the external reinforcements available to AFNORTH is impossible to provide, since their commitment by SACEUR will depend on the local and overall situations at the time, and their official reaction times from warning to deployment on the ground are classified. However, from exercise deployments and published sources it seems that CINCNORTH should be able to count on receiving at least the following:

Northern Norway: • ACE Mobile Force (Land), a brigade-size composite force which, for the Northern Flank, would be drawn from Canada, Italy, the Netherlands, Luxembourg and the UK; partially MAW-trained and intended primarily

Danish & German Armed Forces

German Army's 6th Armoured Infantry Division in Schleswig-Holstein includes a battalion of *Roland 2* SAMs (photo). German Navy has also ordered 28 for port defense.



Danish Air Force's 20 F35 and 16 RF35 Saab *Drakens* are all being converted to ground-attack role, with F-16s taking over air superiority and reconnaissance roles. The *Drakens'* RM6 engines have to go outside NATO, to Sweden, for major overhauls.

One of the first German combat units to receive the *Leopard 2* battle tank (photo) will be the 6th Armoured Infantry Division's armoured brigade. The Division provides primary land defense of Schleswig-Holstein.

German Navy has 20 of these Type 148 missile FPBs (with four *Exocet* SSMs, a 76 mm and a 40 mm gun), plus ten larger Type 143s (four *Exocets*, two 76 mm, two aft-firing torpedo tubes), six Type 205 and 18 Type 206 submarines in the Baltic.

Potential Reinforcements

US Marines coming ashore in Norway. USMC's brigade-strength 2nd Marine Amphibious Force (2 MAF) is likely to be airlifted to North Norway in an emergency and is being progressively trained in Mountain and Arctic Warfare. The reserve 4MAF brigade has been deployed to BALTAP as part of MARCONFORLANT on exercises.

British RAF *Phantoms* frequently provide combar air patrol over NATO fleet units operating in the far North, flying out of Scotland with *Victor* tankers in support. Similar arrangements would allow *Phantoms* and USAF F-15s to boost Norway's all-weather air defenses in a crisis, provided they could be spared.

Italian Alpini battalion is one of the Mountain and Arctic Warfare-trained units which would be airlifted to North Norway with the brigade-strength NATO ACE Mobile Force, as soon as tension reached a pre-determined level. ACE Mobile Force is drawn from several NATO nations. Photo shows Alpini machine gunner in Norway.

The RAF routinely deploys four *Puma* troop lift helicopters to North Norway on ACE Mobile Force exercises.

to demonstrate NATO solidarity (first units arriving by air and deploying on the ground within 6–8 days of initial warning) • UK 3 Commando Brigade, Royal Marines, including a Royal Netherlands Marine Corps company; all fully MAW trained but lightly armed (arriving by air either before, or simultaneously with the ACE Mobile Force, but probably taking up to 10 days to deploy, from first warning, if moved by sea) • US Marine Corps 2 MAB, brigade strength, with armour (M60 tanks); partly MAW-trained and deploying within 8–10 days of warning if moved by air, but taking up to 30 days if coming by sea from the US • Canadian Air/Sea Transportable Brigade Group, with light armour; fully MAW-trained, up to 30 days before fully deployed. Faster reacting air force units would be likely to include • at least one squadron of USAF F-16s from Allied Air Forces Central Europe (AAFCE), as part of the air element of the ACE Mobile Force • one squadron of F-16s from the Netherlands (ACE Mobile Force, Air) • a squadron of F.27 light transports from the Netherlands (ACE Mobile Force, Air) • a squadron of *Harrier* V/STOL attack aircraft from the British RAF's 38 Group (ACE Mobile Force, Air) • a flight of four RAF *Puma* helicopters (ACE Mobile Force, Air) and • two squadrons of Canadian CF-104 *Starfighters* or CF-5s.

If they could be spared, sophisticated air defense aircraft with all-weather weapons systems might be provided on a mission-by-mission basis from AAFCE and/or the UK, though it seems unlikely that such valuable resources (with their special support and maintenance requirements) would actually operate from Norwegian soil except in emergencies. With in-flight refuelling, however, North (or at least Central) Norway might be covered by *Sparrow* missile-armed F-4 *Phantoms*, F-15 *Eagles* and *Skyflash*-armed *Tornado* ADVs, as well as by UK-based strike aircraft such as FB-111s, *Tornado* IDS and *Buccaneers*. In conjunction with one or more AEW *Nimrods* and/or E-3A AWACS, the effectiveness of all combat aircraft allocated will be dramatically increased, especially if jam-resistant, JTIDS-type airborne communications transceivers can be fitted by all the NATO air forces.

The above listing excludes carrier-borne aircraft from SACLANT who, depending on priorities

and location of his MARCONFORLANT carrier battle groups on inintial warning, might provide a very considerable addition in the form of *Phoenix*-armed F-14 *Tomcat* interceptors, troop-lift helicopters and large numbers of attack and ECM aircraft, as well as cruise missile strikes against enemy static targets.

BALTAP: • UK 6th Field Force, over-strength brigade size with armour, low-level SAMs etc; one parachute battalion very quick to deploy (probably 1–2 days), remainder all air-portable (perhaps 3–6 days) except for *Chieftain* tank battalion (up to a week) • USMC 4 MAB, strong brigade size with integral armour (M60 tanks), helicopter and close air support, but probably slow-reacting (up to 30 days) since moved by sea.

Air support for BALTAP could be significantly greater than for North Norway, since AAFCE units (both air defense and attack) could be applied on the "fire hose" principle from the FRG, the Netherlands and Belgium, whenever priorities on the Central Front permitted. The British RAF has up to three *Jaguar* squadrons in 38 Group earmarked to support the 6th Field Force and would probably also deploy troop-lift helicopters. UK-based RAF and USAF air defense and strike aircraft could reach BALTAP far more easily than North Norway, priorities permitting, and MARCONFORLANT carrier aircraft and helicopters would probably also play a very significant role in defense of BALTAP, provided they arrive in time.

It is evident from the above, if it is even remotely accurate, that the reaction times of most reinforcements are far too slow (especially for BALTAP, which could be attacked with virtually no warning) and that there are no all-weather air-defense aircraft firmly included.

SACEUR has therefore proposed a new Rapid Reinforcement Plan (RRP), which would bring in some of the above air, ground and amphibious forces much earlier and add a US armoured brigade and infantry division to the BALTAP reinforcements, plus further Army units from the UK and Canada, but which would concentrate primarily on a quick build-up of all-weather air-defense aircraft in AFNORTH. It would, in fact, add six to seven squadrons within the first few days, drawn from the US and the UK. The RRP is still being discussed in military circles, however. It has yet to be passed on to the civilian governments concerned, for their consideration and approval, after which it must be proposed and approved in the NATO Defense Planning Committee. It could therefore take until end-1979/mid-1980 before it is put into effect, unless SACEUR and the NATO Secretary General can accelerate the process.

Meanwhile the outgoing CINCNORTH, Gen. Sir Peter Whiteley, has proposed a revolutionary step to improve allied reinforcement capabilities. In his view, "the British role in NATO should be changed and more UK forces should be used as reinforcements. This would give a much better effect than at present, although it would cost us dear initially." He said that "the British Army of the Rhine should be progressively drawn down to two or three divisions" and that the forces withdrawn from it should be held in Britain for rapid reinforcement of the flanks, "where it is more likely that they will be required. Reinforcement of the Central Front is a lot easier," he continued, implying that this could be left to the United States; "the UK, which is best at reinforcing by air and sea, should concentrate on the flank areas." Without presuming to comment on the military sense of such a suggestion, which might well be attractive to the British Government for economic reasons, in the *IDR*'s opinion the international political reactions to it risk being positively explosive.

Other problems and recent improvements

Apart from the major problems already cited, there remain a number of others which are of great concern to CINCNORTH. The first of these is the limited training which can be given to conscripts in Norway, Denmark and the FRG because of the short times for Military Service. In Norway conscription lasts for 12–15 months, in Denmark nine months and in the FRG 15 months. This results in a very high proportion of their wartime ground forces being reservists. Compared to the NATO average of 50 percent held in reserve, in the FRG the figure is 64 percent, in Denmark 72 percent and in Norway it is a staggering 87 percent.

Even in the largely regular Air Forces there are training problems. Thus, the air TACEVALS (no-notice NATO tactical evaluations at air bases) have suffered from a lack of national monitoring of the improvements suggested after each one.

A more severe problem is the unsatisfactory logistics situation throughout AFNORTH. Not one of the three nations has achieved the NATO goal of 30 days' combat stocks. The shortages are mainly in the areas of NBC equipment, guided missiles, bombs, aircraft fuel and artillery shells. Norway and Denmark "are not prepared for biological or chemical warfare," a senior officer told the *IDR*, although "the FRG has a big chemical defense program." Another logistics problem is that some equipment is sent outside NATO for maintenance. This applies particularly to the engines of Denmark's 36 Saab F-35 *Drakens*, which have to be sent to Volvo Flygmotor in Sweden for their overhauls.

Norway, with the gravest manpower shortage, is also having financial problems since it is entering a recession and is most unlikely to meet the three percent yearly increase in defense budgets called for by NATO. Civilian officials in the Norwegian Defense Ministry told the *IDR* that although they would like to order more *Roland* SAMs and would like to give their F-16s the optional all-weather missile capability, reconsideration of these questions will have to wait until the budgetary situation improves, hopefully during the 1980s. Meanwhile they, together with the Danes, are pinning their hopes on the acceptance and implementation of the RRP.

In an attempt to end on a more positive note, the *IDR* asked Sir Peter Whiteley what major improvements had been made in AFNORTH since 1972. He replied that "the new ship construction programs in all three countries, especially for fast patrol boats, are superlative," and that the "re-equipment of the German Naval Air Arm with the Tornado will make an enormous difference." He also mentioned the improvement to the land defense of Schleswig-Holstein which will result from introduction of the new *Leopard 2* battle tank in the German 6th Armoured Infantry Division, and the general "awakening to electronic warfare" throughout the AFNORTH area. He said that "the F-16, although lacking all-weather and standoff missile capabilities at present, is going to be a big improvement," and cited the "very good cooperation between Norway and Denmark on C^3I."

Overall, however, the *IDR's* impression of the situation on NATO's Northern Flank is disturbing, to say the least. At the risk of being accused of 'scare-mongering' and over-simplification, it is perhaps worth considering at least parts of the following conventional warfare scenario that comes to mind.

The Soviet Union and Warsaw Pact states have now built up such a preponderance of quick-reaction forces in the Baltic area that, provided they can avoid giving too many confirmatory warning signs and can persuade Sweden to remain neutral, they can probably invade Denmark in an airborne and amphibious operation before the Danes have time to mobilize, as a prelude to an offensive on the Central Front. Denmark does not put even its air defense units under NATO command until full mobilization is ordered, and the latter could be severely complicated by the actions of Warsaw Pact diversionary units, Danish-speaking and wearing Danish uniforms, inserted clandestinely before the operation started.

To prevent interference from Denmark's NATO neighbours, such an operation would require to be executed with great rapidity, and in conjunction with pre-emptive air and missile strikes against German Navy and Naval Air Arm bases, plus air and naval bases in Norway, thus gaining sufficient air superiority to fend off counter-attacks by AAFCE.

Given the narrow frontage and strong West German anti-tank and armoured forces available in Schleswig-Holstein, as well as its air and SAM 'umbrella' provided even in peacetime by AAFCE, the German Land would probably be treated by the Pact as part of the Central Front. However, if Warsaw Pact units were to secure Denmark as a first move, they would be able to severely inhibit allied reinforcement of the area and would force the German units in Schleswig-Holstein to divert at least some of their attention and firepower away from the East German border. Once the Central Front offensive was launched, the FRG's 6th Armoured Infantry Division and Home Defense Group 13 would thus be in the unenviable position of being squeezed in a vice.

Meanwhile a fast Pact build-up in Denmark could provide the means to attack Norway from the vulnerable south of the country, already 'softened up' by the first-phase preemptive attacks. The most difficult part of such an operation would almost certainly be the crossing of the Skaggerak. Parachute units would probably play a major role in establishing a beach-head and if this could be consolidated fairly quickly, Pact forces might have relatively little difficulty in fighting their way up Norway to link with an attack from the north by reinforced units from the Kola Peninsula. This massive scale, but classic, Soviet double envelopment operation would probably be accompanied by heavy air attacks, a thrust through Finland and maybe the northern corner of Sweden and by amphibious operations along the Norwegian coast with large-scale naval support.

The arrival of even quick-reaction reinforcing fighter squadrons in Norway would be questionable in such circumstances, since the limited number of reception airfields could have been already rendered inoperative, quite possibly by chemical attacks.

In these conditions, the battle would shift rapidly towards the sea, with the Soviets attempting to push through as many Northern Fleet attack submarines as possible into the Atlantic, together with cooperating surface action groups and Naval Air

MAIN OFFENSIVE FORCES FACING AFNORTH*

Kola Peninsula (all Soviet)

Northern Fleet
51 Nuclear-powered ballistic missile submarines
44 Nuclear-powered cruise missile submarines
29 Nuclear-powered attack/hunter-killer submarines
74 Diesel-powered attack and patrol submarines
32 Cruisers/destroyers
70 Frigates/escorts
36 Other "offensive" types
300 Auxiliaries of various types

Northern Fleet Naval Air Force
60 Long-range attack aircraft (with ASMs)
55 ASW aircraft
75 Maritime reconnaissance and ECM aircraft (about half of all the above are Tu-16 *Badgers*)
50 Transports
80 Helicopters

Amphibious
1 Naval Infantry Regiment (1 tank battalion, 3 infantry)

Tactical Air
13th Tactical Air Army based mainly in South of Leningrad MD, with only reconnaissance and transport aircraft permanently on Kola Peninsula. Includes 320 aircraft, of which about 120 are fighter-bombers (Su-19, Su-20, MiG-27, MiG-21, etc.). Many of remainder are helicopters.

Strategic Rocket Forces
10 Silos for SS-5 *Skean* MRBMs (expected to be replaced by mobile SS-20s)

Ground Forces
2 Category 1 Motor Rifle Divisions (14,000 men and 266 battle tanks each. Can be reinforced by a Cat. 1 Airborne Division and 2-4 Cat. 2 and Cat. 3 MR Divisions from South of Leningrad MD).
1 Army-level Rocket Brigade with *Scud B* SSMs
1 Army-level Artillery Brigade
1 Army-level Air Defense Regiment (SA-4 SAMs)
Special Forces and Diversionary units

Baltic

Soviet, Polish, East German Baltic Fleets
6 *Golf II* diesel-owered ballistic missile submarines
50 Diesel-powered attack and patrol submarines
27 Cruisers/destroyers
25 Frigates/escorts
260 Torpedo/missile-armed fast attack craft
250 Minesweepers
120 Landing ships (excluding Ro-Ro merchant ships)
Unknown number of *Aist* and *Gus* hovercraft.

Soviet Baltic Fleet Naval Air Force
Numbers not available, but probably similar to those on Kola Peninsula. They include at least 12 *Backfires*. Other ASM-equipped bombers include T-22s and Tu-16s.

Amphibious
1 Soviet Naval Infantry Regiment
1 Polish Sea Landing Division
1 East German Motor Rifle Division specially trained for amphibious warfare

Soviet, Polish, East German Tactical Air
410 Fighter-bombers (including Su-19, Su-20, MiG-27, MiG-21, Su-7, etc.)
300 Air superiority fighters (including MiG-23, MiG-21, etc.)
Large number of helicopters
(Most of the above expected to be drawn from Soviet 37th Tactical Air Army in Poland)

Soviet Long Range Air Force (applies also to Kola)
Up to 50 *Backfires*, with ASMs
70 Tu-22s, with ASMs
100 Tu-16s, with ASMs
20 Mya-4s
40 Tu-95s

Soviet Strategic Rocket Forces (as for Central Front)
80 SS-5 *Skeans*
100 Mobile SS-20s
500 SS-4 *Sandals*

Soviet, Polish, East German Ground Forces
Up to 7 of the 13 divisions stationed in East Germany and Poland (50% tank), depending on Central Front priorities. Can be rapidly reinforced from Soviet Baltic Military District where there are now 10 divisions (3 tank, 4 motor rifle, 3 artillery).
1 Polish Airborne Division
2 Polish Special Forces battalions
2 East German Special Forces battalions
Soviet Reydovikl Special Forces groups

* This table is very approximate and is drawn from information published in the article "The Threat to Northern Europe" (*IDR* 4/79)

Force aircraft, possibly now flying out of Denmark and southern Norway. As suggested by analyst Norman Polmar, it is likely that the US President would meanwhile have had second thoughts about dispatching up to 80 B-52D strategic bombers (the principal US mine-laying vehicles), with sophisticated *Captor* and other ASW mines, towards the Norwegian Sea. "With Moscow in essentially a straight line 2,000 km beyond the Norwegian coast," asks Polmar, "would even a 'hot-line' call from the US President convince Moscow leaders that the planes—almost one-quarter of the US long-range bomber force—were not the start of a strategic [nuclear] attack?"

The Soviet Northern Fleet's move towards the Atlantic would also aim at establishing a defense "barrier" from the Baltic exits to the Faroes, Iceland and maybe Greenland. Opposition from the Norwegian Navy would probably be augmented fairly rapidly by British, Dutch and remaining German Navy units, supported by ASW and anti-ship attack aircraft from Iceland, the UK and the Netherlands but the major riposte would probably be delayed until the arrival of SACLANT's Maritime Contingency Force Atlantic (MARCONFORLANT), including one or more carrier battle groups. Only with the arrival of MARCONFORLANT could amphibious counter-attacks on Soviet-held Denmark and/or Norway be contemplated, by which time the Central Front battle for Western Europe would probably be in full swing, and Southern Flank operations would have started.

The questions "Why should the Soviets attack in the first place?" and "Would it be worth it?" can only really be answered by Soviet President Brezhnev or his successor(s). The answers will depend on many factors, some of them within NATO's control, such as the state of the military balance, some of them external, such as the attitude and potential actions of the leadership in Peking. As far as the Northern Flank itself is concerned, unless improvements are made in NATO's posture perhaps the greatest deterrent to Moscow is the element of uncertainty posed by presently neutral Sweden.

The Elusive Quest: America's Pursuit of European Stability and French Security 1919–33, By Melvyn P. Leffler, University of North Carolina Press, 1979; pp xvi, 409; $22.00.

Melvyn Leffler, professor of history at Vanderbilt University, researched and wrote this in-depth study of American foreign policy toward France and Western Europe during the turbulent years between the Paris Peace Conference of 1919 and the London Economic Conference of 1933.

The book contains 10 chapters and a comprehensive 25-page bibliography. Topics covered are economic diplomacy, German rehabilitation and French security, monetary stability, President Hoover and the failure of economic diplomacy, and President Roosevelt and the dilemmas of policymaking. Some of the fine points examined are as follows: restoration of the gold standard; cancellation of war debts (owed to USA) to facilitate stabilization of European finances and expansion of US exports; French invasion of the Ruhr in 1923 and subsequent German currency depreciation; the Dawes Plan (an excellent summary) which initiated European financial stabilization; instability of the post-WW I French franc; the US $1,000,000,000 proposed loan to France and the loan embargo; French franc stabilization; and the European financial crises and the London finance conference.

The 1919–1933 period was a transitional phase in the evolution of American diplomacy: US policy makers were aware of the growing interdependence of the world economy and attempted to establish a "stable liberal capitalist community in Western Europe"; policy makers considered all the risks of foreign involvment and weighed them heavily against the dangers of isolation and considered the domestic repercussions of efforts to expand exports.

The book does not contain supporting statistical tables or diagrams. It is generally well-written, clear and concise, and should be read by students of international economic relations.

Richard A. Banyai, Editor
USAICS, DTD

Helicopters of the World
by Michael J. H. Taylor & John W. R. Taylor, Charles Scribner's Sons, 1978, 109 pp, 143 photographs.

This book describes and illustrates all significant helicopters and rotorcraft under development, in production, and in service throughout the world. The accompanying photographs and specifications combined with the descriptions offer an insight of aerodynamics of helicopters and autogyros seemingly unprecedented anywhere.

The helicopter has, of course, become beneficial primarily as a life-saving aircraft as Igor Sikorsky first dreamed. Its military and commercial uses, however, have gone far beyond that, and its advancement through the book is noted with great interest.

Militarists will note with some interest the Mil Mi-24 (Hind) gunship produced by the Soviets. This second edition of the book includes almost all new illustrations. It is must reading for all serious students of rotorcraft.

CPT Steve Garrett
TOPSTAR

American Caesar, Douglas MacArthur 1880–1964,
by William Manchester, Little, Brown and Company, New York, 1978, $15.

American Caesar is an excellent book for both soldier and civilian objectively trying to assess the many accomplishments of General MacArthur, perhaps one of the most controversial men in American military history.

As one reads **American Caesar,** it becomes apparent that the strengths and weaknesses of MacArthur seem handed down from his parents. The qualities that made MacArthur great and the faults that contributed to his downfall can be detected as early as his days at West Point and during World War I.

William Manchester portrays Mac Arthur as human rather than as a giant shrouded in grandeur and myth and allows the reader a comprehensive understanding of MacArthur's World War II military campaigns, his administration of Japan during the post-war occupation and his famous Inchon landing.

American Caesar is well-written and informative. It includes a quick-reference chronology of MacArthur's life in the cover. A detailed notes and bibliography section is invaluable to the reader who would like to study MacArthur further.

John M. Rooney
MAJ, IN

Pseudo Operations: Yesterday, Today and Tomorrow

by 1LT K. L. Jamison,

In 16 days in the spring of 1863, Union Colonel Benjamin H. Grierson took his regiment 600 miles through the heart of the Confederacy without once being decisively engaged. The success of the raid, in terms of the damage done to the enemy supply lines and materiel and the eventual escape of the column, was due in no small part to the fact that Grierson's Scouts were dressed in Rebel uniforms.

Taken for Confederate troops, the Scouts were able to locate supplies, misdirect enemy units, capture bridges, spread rumors and take prisoners with ease.

Since Grierson's raid, Pseudo operations (as the British call them) have been employed successfully on innumerable occasions. Whether used against terrorists at Entebbe Airport, or raised to an art against the Mau Mau in Kenya, however, Pseudo operations have been viewed as an oddity, used for specific missions and largely discarded as irrelevant to modern warfare. This conventional opinion overlooks the role of Pseudos in the **blitzkrieg** battles of World War II.

On the morning of 16 December 1944, the Battle of the Bulge began with a massive, rolling barrage of artillery accompanied by electronic warfare as armor divisions rolled over the Ardennes. Operation Grief, a Pseudo Brigade formed by Colonel Otto Skorzeny, head of German Commando Operations, was planned as part of the offensive.

The expected breakthrough never came in the snowbound forests of the Ardennes: Instead of a brigade, only seven jeeps, each with four men, managed to infiltrate US lines. One team was caught; the rest cut wires, misdirected traffic, spread rumors, and reached the strategic bridges over the Meuse, nearly repeating Grierson's feat of 80 years before.

These incidents, widely separated in space and time, indicate the enormous potential for Pseudo teams in conventional warfare, most obviously in the gathering of intelligence.

On the highly mobile modern battlefield, up-to-date intelligence is critically important. Pseudo teams can gain information through conversation with enemy troops, wiretapping, direct observation, or the taking of prisoners.

Pseudos routinely use uniforms as a cover to gain access to targets for a raid or sabotage. Combat missions are kept to an absolute minimum to avoid the loss of critical personnel. Cover is the Pseudos' primary weapon and key to survivability. When Pseudos fight, they lose this cover. Thus, cover can only be chanced for strategic targets; Pseudo personnel are too valuable to be risked for less.

Finding personnel qualified to support the cover presents the greatest problem for a Pseudo team organizer. Skorzeny found that out of 3,500 "English speaking" volunteers only 10 spoke American-accented English, 30 to 40 were fluent, 150 could "make themselves understood," 200 remembered something from their school days, and the rest could just about say yes and no. While fluent speakers may be available, few are sufficiently colloquial in a second language to fool a native. Add to this native mannerisms and (perhaps) racial distinctions and one recognizes the severe difficulties associated with the gathering of people with the necessary talents. Skorzeny solved this problem on the Eastern front by incorporating converted PWs into his teams. This technique was used on a massive scale by the British against the Mau Mau in Kenya and by the US in World War II, Korea and Vietnam.

A factor working in favor of team survivability is the expectation that whatever appears friendly is friendly. In a chance night encounter with real Mau Mau, a Pseudo team introduced an undisguised white police-man as an Asian Mau Mau General. Although the Kenya Asian population had never been the slightest bit interested in Mau Mau, the lie was accepted without murmur. Members of a special Air Service Team in World War II walked into an Italian-held port, identified themselves as General Staff and berated the guard commander for sloppy security. Despite their British uniforms and five-day-old beards, they were saluted by the guard as they left. Later, they drove unmolested down the main supply route, in daylight, still in British uniform, driving a British truck, waving at German convoys, successfully exploiting the fact that captured material was used extensively by Axis forces in the desert.

Dialects are another factor often working in favor of the Pseudos. In the Soviet Union, more than a hundred different languages are spoken and it is common for Soviet soldiers to speak poor Russian. Other widely-spread languages, such as Arabic and German, are plagued by local variants, occasionally to the point of mutual incomprehensibility. The claim of having lived outside the homeland for a number of years may allay suspicions in a pinch.

The team's skill at deception and not drawing attention to itself is critical to survivability. Although being caught in enemy uniform is not a war crime, team members would undoubtably be shot as spies.

The necessary talents for Pseudo team soldiers are therefore: language ability, familiarity with the target country, intelligence gathering capabilities, squad level tactical expertise, fieldcraft and adaptability. These talents are found in the greatest concentration in Special Forces "A" teams.

The Special Forces organization as a whole provides a perfect framework for Pseudo teams which would work at theater level under the Joint Unconventional Warfare Task Force, giving them command with a high level of understanding of unconventional warfare. This would insure they were not wasted on minor targets or missions beyond their capability.

The typical Special Forces Operational Base (if one can be called typical) will have to be augmented somewhat for use by Pseudo teams. A better than usual cover must be established to

account for enemy equipment and uniforms in the area, because the team's survivability and effectiveness depend on the cupidity of the enemy. A battlefield recovery depot and PW compound provide camouflage and a source for supplies as well.

Mechanics and machine shops will be needed to fabricate or repair foreign equipment parts. Communications, operations, intelligence and electronic warfare (radio interception, detection and analysis) assets are available within the Special Forces organization. These assets and team isolation and support areas will be necessary for the support of the Pseudo teams.

The SF team is ideal for Pseudo operation. Its 12-man authorized strength and organic skills (intelligence, communications, medical, engineer and weapons specialist) would cover nearly any situation that might arise. Still, the "A" Team must be adapted to make the best of Pseudo operations.

An Army Security Agency (ASA) attachment of one or two men with a simple scanner, jammer, direction finder and wiretaps, could help the team avoid large enemy concentrations while keeping up with the local enemy situation of which they are supposed to be a part.

As long as the team is in enemy territory, its most fluent member must act as the CO. Even when not in direct contact with the enemy, the team can never be certain when it is being observed; the ostensibly ranking individual must ***constantly*** act as commander. This was done with great success in Kenya, using a converted hardcore Mau Mau to lead counter-Mau Mau operations. A further innovation was to use a "cover man" for the disguised, white, Special Branch inspectors accompanying the Pseudo teams. The cover man was not a body-guard, but was to draw attention away from the inspector so that flaws in his accent or disguise would not cause comment.

The Special Forces "A" Team is flexible and adaptive by nature and should have little trouble with these modifications.

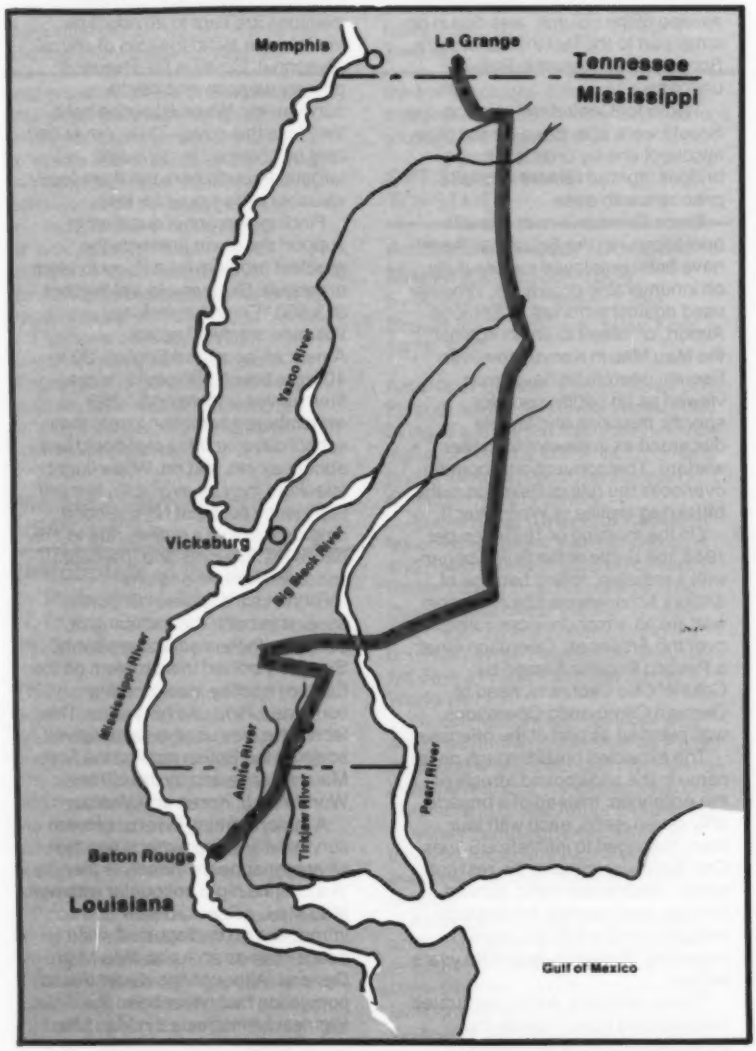
In order to be successful, Pseudo team members must learn an entirely different lifestyle. It must become so deeply ingrained that it comes more naturally than their original lifestyle. This demands that the Pseudo team "live enemy," dressing, eating, sleeping, drilling, playing and even smoking like the enemy.

During World War II, COL Skorzeny and the American OSS sent men to live in PW compounds as PWs to test their cover. Such dress rehearsals for their missions were important because many prisons had kangaroo courts that sentenced suspect prisoners to death without hesitation.

The team cover must be selected carefully to allow maximum freedom of movement while drawing minimum attention. A signal unit's cover will permit a considerable amount of movement and tampering with phone lines. Scouts and messengers travel a great deal and have an excuse for inquiring about locations of headquarters, services and support arms. Vehicle recovery teams move back and forth on the battlefield and are unlikely to be policed up as stragglers.

Mobile propaganda teams or political officers will usually be passed without question, and ***no one*** stops the KGB. The only difficulty with these covers, particularly the latter, is that they would occasion considerable comment.

It is important that the Pseudo



Dotted line shows Grierson's Route. Poor maps and flooded creeks made the Scouts invaluable for their ability to extract information and obtain crossings without recourse to battle.

team be equipped according to the strength of the enemy units in their area (not necessarily according to the official TO&E, but rather to the local state of enemy supply and reinforcement). Ideally, the cover should be changed occasionally to avoid eventual recognition. Grierson's men were eventually plagued by a report of an eight-man Union detachment masquerading as members of the Tennessee cavalry.

Pseudo equipment should be entirely enemy equipment. Certain amounts of ASA, beacon and communications equipment have to be American. This equipment must be disguised and used only when unavoidable. Transmitters must be used only in an emergency to avoid compromising the team.

Enemy equipment itself presents difficulties second only to language qualification difficulties in a mechanized Pseudo operation. Materiel from belt buckles to tanks will be needed as well as specialized equipment to fit the cover of signal, vehicle recovery, or other units not frequently encountered in combat.

Certain amounts of equipment may be forged. US equipment may be repainted and used if the enemy makes massive use of captured materiel, but vehicles, radios, weapons and ammunition can only be had through capture. This equipment is usually badly damaged in the first place and hard to pry loose from souvenir hunters and intelligence channels in the second.

An extensive operations fund in "trade goods" as well as cash must be supplied to the Special Forces Operational Base and teams for local acquistions.

Training and equipping the team is of no use unless it can be inserted behind enemy lines. Infiltrating the lines is accomplished in four basic ways. Skorzeny used air infiltration to insert teams with captured aircraft. Delivering vehicles by this method is possible but not very clandestine.

Water infiltration is an alternative, and enemy boats a possibilty, but it is difficult to land vehicles secretly. Mobility may be enhanced by the use of motorcycles (a common article in Warsaw Pact armies). Skorzeny trained his men in the use of any vehicle from a motorcycle to a locomotive.

The highly mobile battles of the 1973 Mideast War work in favor of land infiltration but getting out of friendly territory without alerting the GI rumor mill remains a problem. Stay-behind techniques are ideal, but limited to a retrograde operation.

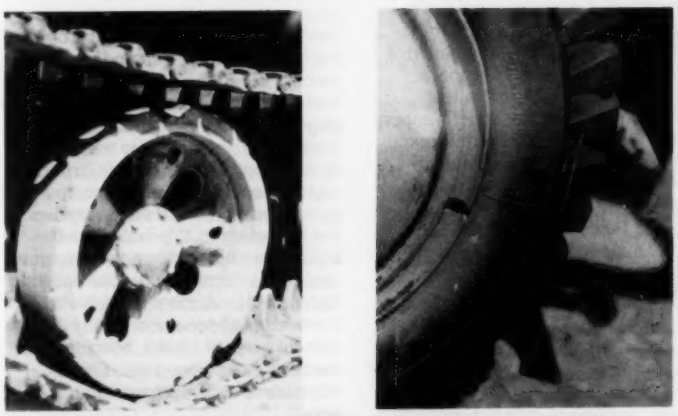
Pseudo teams are capable of infiltrating by any means currently in use. Each has its own advantages and disadvantages, depending largely on the type of unit the Pseudos are imitating and local terrain.

A Pseudo team cannot remain behind enemy lines indefinitely unless supported by an unusually well-organized underground. Since they must return to base for debriefing if nothing else, some means must be found to insure that they are not killed by friendly forces.

"No fire" areas are one technique used to protect Pseudo teams. Signals and passwords are another, but this is sure to spread rumors of enemy troops knowing our recognition signals. By far the best method is a surrender signal distributed by Psyops; then an identifying code word or phrase coordinated with the PW interrogators will maintain security and reasonable speed in reporting information.

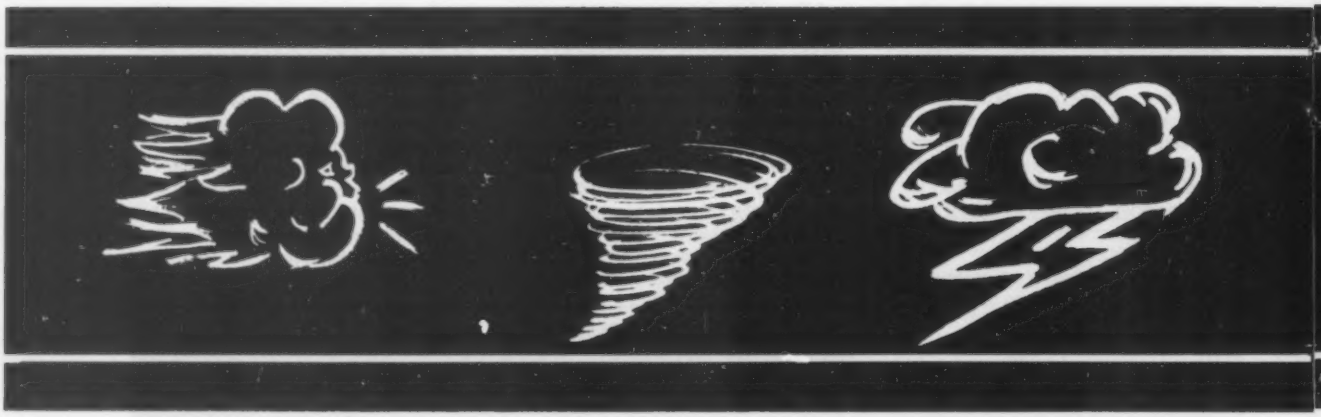
Pseudo teams have been used successfully in enough conventional conflicts to demonstrate their intelligence and combat potential adapted to today's battlefield. In the next war, Pseudo teams will be capable of providing accurate, timely intelligence no other source can match. In order to have any hope of such a team being ready in time to be of maximum use, equipment must be obtained and qualified personnel identified now.

A Soviet T-55 tank and UAZ-69 "jeep," late of the Israeli Army and used for training exercises at Fort Bragg. Mechanics at the post support facility refer to them as "simple, rugged and relatively unsophisticated." All assets of Pseudo operations. Replacement parts not provided by the Israelis are manufactured on lathes and grinders.



Close-up of T-55 road wheel and UAZ-69 tire show wear and tear inflicted during capture and use. Replacement of worn-out rubber items is by capture or extensive support facilities.

The Myth of "All Weather*" Systems



by LtCol Owen Y. Macy, USAF

Introduction

The goal of every combat materiel developer and design engineer is to provide new combat capabilities to the tactical Army which are insensitive to the effects of the meteorological elements. While this is a worthy goal, it has yet to be achieved and it is doubtful any system or capability will be fielded soon which can operate totally unaffected by the weather. In fact, the more sophisticated the weapon system, the more apt that it will be degraded by one or more meteorological elements.

Knowledge of the meteorological elements which degrade a system's capability and the degree of degradation is essential in the determination of system availability, cost and operational effectiveness tradeoffs, test criteria, requirements for direct weapon weather support from US Army sources and the identification of operational weather support requirements which will be used as the basis for United States Air Force's Air Weather Service weather support to US Army tactical operations. Ideally, as each system proceeds through its life cycle development to the operational phase, it should be carefully evaluated to determine the critical values or "crunch-points" where the system does not operate as designed because of degrading weather factors. Once "crunch-points" are known, the staff weather officer can tailor his operational weather support to these critical values and inform the US Army commander and staff in advance of their probable occurrence. Knowing that his weapon system capabilities will be degraded or unavailable, the US Army commander can select alternate courses of action or options.

Similar knowledge of the opposing force capabilities and limitations under various weather conditions is important when evaluating the threat to friendly combat forces. The fact that an opposing force has limited air and ground mobility or reduced reconnaissance and surveillance capabilities caused by degrading weather factors is essential intelligence. In addition to natural weather conditions degrading military capabilities, friendly and opposing force commanders have at their command the limited ability to produce "man-made" weather to degrade weapon system performance. Smoke has long been used to obscure the battlefield from visual observation. Today the selective use of smoke, colloids, and aerosols can be used as battlefield obscurants and countermeasures to visual, infrared and microwave sensors.

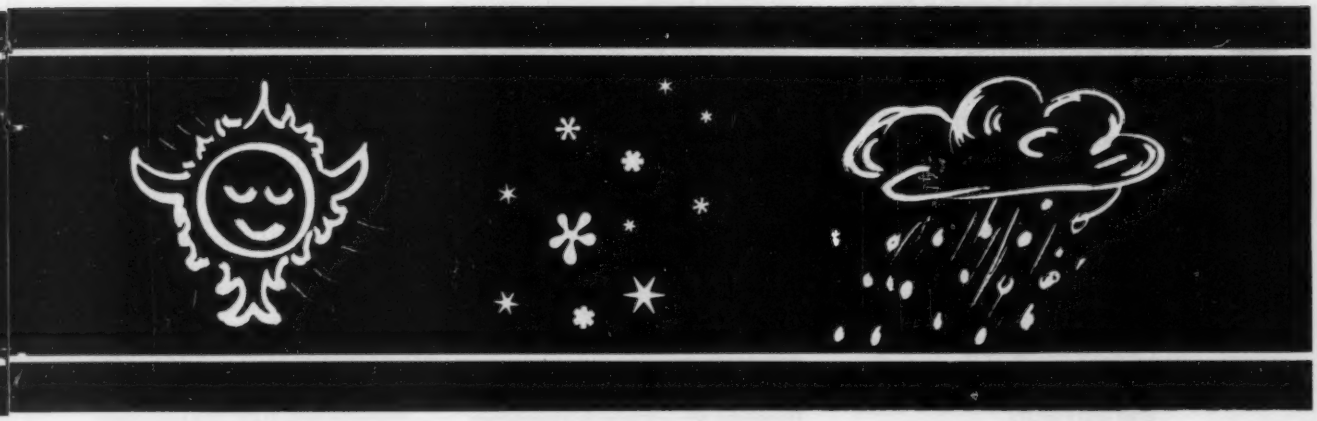
The *total* system approach to acquire new capabilities requires a careful examination of each aspect of a device, piece of equipment, weapon system, or organization to determine the critical weather factor thresholds which degrade their operation and function. The total system is more than the sensor, computer, vehicle or weapon. It also includes the command and control, supply and maintenance, and operator functions. For the purposes of this article, a system is divided into three parts for examination of weather sensitivities.

The Physical Principle(s) Governing the Operations of the System

This is the most important aspect to be examined. Each system and supporting subsystem is dependent upon one or more physical principles to achieve its operational or functional capability. These physical principles may be affected by changing atmospheric conditions and weather elements. It is possible to identify weather impacts during the conceptual phase, and the development and operational testing of new military materiel and organization capabilities. Some examples of physical principles which are affected by weather factors are:

- Visual and optical, infrared, and micro-wave systems are dependent upon atmospheric transparency at specified wave lengths (transmission and receiver frequency). Rain, snow, clouds, fog, and water vapor along the line-of-sight of systems using these principles can adversely affect their performance.

*The term "weather" is used interchangeably with "meteorology" as an all-inclusive term to mean sensible weather such as density, temperature, moisture, wind and precipitation as well as high altitude ionospheric phenomenon.



• Airborne and ground platforms are dependent upon air and ground mobility. Atmospheric turbulence, icing and winds, rain, snow and extreme temperatures can impact on the optimum design mobility performance of systems using these principles.
• Electrical and electronic systems are dependent upon a steady power source. Lightning can cause power surges and phase shifts in the power source of these systems and adversely affect their operation.

The Command and Control and Logistical Support Subsystems of the Weapon System

This is an area of a weapon system which is often neglected; however, there are weather impacts on the critical node subsystems which degrade the weapon systems. A perfect weapon system which cannot be directed, commanded, or brought to bear on the enemy is a degraded system. If supplies cannot be provided to operate or maintain a system, that system cannot operate effectively. For example:
• Meteorological conditions which disrupt communications and data links for fire control, navigation and target acquisition subsystems degrade total combat effectiveness.
• Weather factors which disrupt seaport operations and other logistical lines of support may reduce food, munitions, medical supplies and spare parts thereby decreasing combat effectiveness.

The Operator

The human element is critical in system performance. The best piece of equipment is worthless if personnel cannot operate or maintain the system because of meteorological factors. Equipment built to withstand extremes of temperature, humidity and wind may be able to withstand weather factors far more severe than the operator. Outdoor aircraft maintenance procedures at Fort Huachuca, Arizona, may be more time consuming or impossible at Fort Richardson, Alaska. Many systems include life support and creature comfort subsystems for the operator; however, when these subsystems fail; the whole weapon system is inoperative and combat effectiveness is reduced.

Conclusion

The foregoing is not meant to be a complete list of weather impacts, but to illustrate that weather factors impact military operations, equipments and organizations and that "all weather" systems do not exist. All weapon systems from the primitive bow and arrow to supersonic aircraft and space missiles are affected and degraded by various weather elements. So too are tracked vehicles and electro-optical surveillance and night vision devices.

The early examination for and identification of critical weather threshold values in developing weapon systems is necessary for the US Army to articulate its operational weather support requirements to the United States Air Force Air Weather Service. In addition, there are specific requirements which the US Army must satisfy for itself. The United States Army Intelligence Center and School (USAICS), as the Training and Doctrine Command (TRADOC) proponent for general meteorology requirements (less ballistic meteorology) has broad responsibilities in the identification of operational weather support requirements throughout the TRADOC combat development community. In addition, USAICS is responsible for developing the doctrine and organizations, and training the intelligence officer and analyst to exploit weather intelligence in a tactical environment.

There are two offices available here at USAICS to assist the combat and materiel developers in the methodology of examining new concepts and systems for weather sensitivities and possible weather support requirements.
• Directorate of Combat Developments, Studies and Analysis Branch, Mr. Richard Cundy, Autovon 879-3352.
• USAICS Staff Weather Officer, LtCol Charles Warnick, Autovon 879-3352.

When these offices are unable to answer your questions, procedures are established to seek out the best meteorology talent in the Army or Air Force for advice and consultation on weather support and weather impacts. These services are made available to improve combat effectiveness and give decision makers an insight into how to get "the most bang for the buck."

USAICS Accreditation

The United States Army Intelligence Center and School (USAICS), Fort Huachuca, Arizona has been accredited by the North Central Association of Colleges and Schools.

USAICS received candidacy status with North Central in 1976 as a certificate-granting institution. This status was continued until September 1978, at which time USAICS began to actively pursue membership status with North Central. In that same month, the Staff and Faculty Training Division of the Directorate of Training assumed managerial control over the School's accreditation effort. The Division immediately generated a new self-study group comprised of personnel throughout USAICS. The self-study group divided into committees and conducted investigations into the following USAICS categories:

Historical Background
Organization and Administration
Student Personnel Services
Staff and Faculty
Instructional Programs
Library and Learning Resources
Physical Facilities
Financial Resources
Evaluation Procedures
Long-Range Planning

The results of this study were submitted to the Director of the Associaton in February 1979. The self-study was positively accepted by the Association and an on-site visiting team was scheduled to review the USAICS programs. The team that visited USAICS during 2–5 April, 1979 consisted of the following people:

Dr. John P. Turano, Chairman, Vice President of Academic and Administrative Affairs, Trustees of the Consortium of State Colleges, Denver, Colorado.
Dr. R. Wayne Clark, Vice President of Instruction, Belleville Area College, Belleville, Illinois.
Dr. Barbara Ann Barbato, Director, Center for Individualized Studies, Webster College, St. Louis, Missouri.
Dr. Howard Jones, Dean, College of Education, University of Iowa, Iowa City, Iowa.

This distinguished team conducted an extensive review of the training procedures of the Intelligence School as well as the total student support environment. Upon completion of the on-site visit, the team unanimously recommended to the North Central Association that USAICS be granted accreditation at the certificate-granting level. This recommendation was based on the School's positive reponse to the 1976 team's listed areas of concern and the School's overall strength in instruction, administration, funding, progress in physical facilities, and excellent programs in student services.

This recommendation was forwarded to the North Central Association for review prior to USAICS' consideration at the annual review committee meeting in Chicago in July 1979.

The Director of Training and two representatives from the Staff and Faculty Division presented the USAICS program and answered questions for the July Review Panel. The result of the July meeting was that the request for accreditation was continued by the committee pending further investigation into the policies of the Association for admittance of military institutions.

In January 1980, the North Central Review Committee reconvened and accepted the Intelligence School's request for accreditation.

Accreditation Impact for USAICS

Receiving accreditation is a significant step forward in recognition of the academic excellence of the programs at USAICS. Dr. Thurston E. Manning, current Director of the North Central Association commenting on the value of accreditation in the North Central Association Quarterly, Fall 1979 stated that, "Accreditation is a non-governmental, voluntary means of attesting to the quality of educational institutions." The attainment of accreditation "assures the educational community, the general public, and other organizations that the institution has both clearly defined and appropriate educational objectives, has established conditions under which their achievement can reasonably be expected, appears to be accomplishing them, and is so organized, staffed and supported that it can be expected to continue to do so."

The granting of accreditation by the North Central Association will undoubtedly raise the prestige of the Intelligence School in the eyes of the civilian academic community. The increased exposure for the School's programs will in turn create new and expanded educational recognition for the course work completed by USAICS students. Much of this course work may now be viewed as more easily applicable to certain college and university requirements, as those schools will be more receptive to courses from an accredited institution.

For today's soldier, this recognition can prove to be a vital incentive for seeking out a career in the military intelligence field. By combining college courses available through education centers, with the courses available at USAICS a soldier today may find an Associate or Bachelor Degree closer at hand than previously throught.

USAICS does not view this honor as a final process, but rather as a new beginning in the search for continued recognition of its programs and the attainments of its soldiers.

26C, 96D: Credit Where Credit is Due

COMMANDERS, are your **26Cs** and **96Ds** getting full credit for their work? If not, encourage them to visit their local Education Services Officer and enroll in the Army's Skill Documentation Program.

The Army currently has 134 military specialities which have a direct correlation to 74 civilian trades. The 26C and 96D military occupations are the Intelligence School's (Huachuca) entries into the program.

After enrolling in the Skill Documentation Program, soldiers document their daily work experience and when they have completed the specified requirements for apprenticeship in a particular trade, the Department of Labor issues them a "Certificate of Completion of Apprenticeship, Journeyman Status." The usual completion time for this process is between four and six years; however, soldiers leaving the program prior to completion can receive a letter from the local Education Officer documenting all current work experience.

While the program is growing, more command emphasis is required in order for this soldier-centered benefit to reach its full potential. The USAICS program is contained in **DA Pam 621-126** for **26C,** (Electronic Technician, Radar) and **DA Pam 621-127** for **96D,** (Photographic Interpreter). Any questions regarding this program can be directed to representatives at your local education centers.

Commanders: Advertise Your Units' MI Opportunities

Commanders interested in advertising the military intelligence career opportunities available to officer and enlisted personnel at their units may send appropriate graphics, photographs and copy along with a proposed layout to Military Intelligence, P.O. Box 569, Fort Huachuca, AZ 85613.

(See inside back cover.)

Military Intelligence and the Reserve Components

by MG Edmund R. Thompson and LTC Owen R. Quinn

The programmed conversion to the Combat Electronic Warfare Intelligence (CEWI) structure has generated considerable enthusiasm throughout the Reserve Component Military Intelligence community. This enthusiasm is somewhat tempered, however, by understandable concern over the Army's ability to resource the new structure in the RC.

One of my primary goals is to ensure that CEWI is incorporated into the total Army thereby bringing about long needed structural modernization and a substantial upgrade to our tactical intelligence capabilities. CEWI units have been programmed to support all 16 active Army divisions, 2 separate brigades and 3 armored cavalry regiments. These reorganizations have already begun.

Now we are concentrating on the Reserve Component. The current program calls for eight CEWI Battalions to support the eight ARNG combat divisions and for CEWI support to selected separate ARNG and USAR brigades and armored cavalry regiments. Genuine enthusiasm has resulted from these plans since they represent an important move toward the more integrated and effective total Army that we have been working toward in recent years.

Along with the enthusiasm for the RC CEWI implementation, there are currents of anxiety, doubt and consternation. Those feelings stem from concern over problems in the areas of equipment, manning, training and stationing. These problems are real. Equipment is lacking to fill the intelligence units currently in the structure, both active and reserve. Moreover, recruiting, training and retaining qualified personnel to man MI units is complicated when there is insufficient equipment for training. This is especially true in the RC. Additional problems are posed by the question of where to station the new RC CEWI battalions and companies in order to best ensure a recruiting base, administrative and maintenance support, and access to training areas and facilities.

Yes, we are faced with serious challenges to which there are two clear alternatives. Either we can sit back and accept defeat in the face of what some people consider insoluble problems, or we can take some risks and push forward with CEWI to modernize and improve our Reserve Component tactical intelligence units. I support the latter alternative. We must do our best to achieve our readiness goal of providing the Army with sufficient warning of hostilities, knowledge of potential enemies and areas of deployment, and that continuing intelligence support required to win the first and subsequent battles on the modern battlefield.

To achieve this goal we must work to obtain equipment, adequate manning and training facilities. In this regard we will have to intensify our efforts in the programming and budgeting arena. There we meet keen competition from all other sectors of the Army for priorities and scarce resources. Also, we must intensify our efforts to properly train, utilize and retain qualified personnel. Retention is key since it reduces the requirements for intensive recruiting efforts. More importantly, if we can retain the good people we have, we will attract more good people to the Army.

The acquisition of required equipment will enhance training and improve both proficiency of personnel, and the retention and recruiting of qualified and qualifiable personnel. Intelligence unit readiness and deployability will improve as we achieve our objectives. However, our actions must be thoroughly planned and calculated to succeed without compounding existing problems or forcing a reorganization of assets which will not have any reasonable level of supportability.

Extensive efforts are underway at HQDA, FORSCOM and the CONUSA's to identify and address the problems that currently exist in the RC MI community. We are trying to anticipate and examine the problems that could confront us as we reorganize for CEWI. It is a difficult task, but the efforts being expended are producing worthwhile results. Today's planning is designed to improve peacetime training and administration and to enhance our ability to mobilize ready RC intelligence assets on short notice.

Exercise Nifty Nugget/MOBEX 78 was a joint mobilization exercise conducted in October 1978. It pointed out many shortcomings in our mobilization plans and capabilities from the Army Staff down to the smallest deployable RC unit. A similar but more extensive mobilization is under consideration for the fall of 1980. Before MOBEX 80 gets underway we must do all that we can to correct the problem areas highlighted in MOBEX 78. We want MOBEX 80 to show progress in our capability to mobilize and not be just a rehash of the same old problems.

Basic things, like submission of correctly completed applications for security clearances for all unit personnel required to be cleared for access to classified material, provide a good place to begin. There are still uncleared personnel who were identified in MOBEX 78. Check your unit to ensure that it will not be one of the units prolonging this and other problem areas.

The problem of untrained and unqualified personnel in the MI units continues. There are many opportunities throughout the year to obtain schooling for your personnel. Check them out. Send your people to the available schools. Investigate the ITAAS summer training programs. See what USAICS and USAISD have to offer. Conduct OJT and MOS training. You may someday have to go to war with those unqualified people, and then it will be too late.

Last summer I visited some USAR MI units during their annual training. I was impressed with the professional approach taken by those Reservists in implementing an extensive FTX, in overcoming serious equipment and logistics problems, and in functioning effectively in a climatic environment very different from what they were used to at their home station. I was particularly impressed with the dedication, effort and devotion to duty they displayed.

The Reservists I talked to and watched in the field, those I have met and talked with at various conferences during the year, and those I have met through the MOBDES and the STRAT MID programs have demonstrated to me that we have a dedicated, professional and effective RC MI community. We have a lot of outstanding and capable people in the Reserve Components. We must do all that we can to further develop that community and the people who make it a potent force. Further, we must retain those good people and we must encourage other good people to join the Reserve Components upon which our national defense now depends so much.

The Active Defense

by CPT Wayne M. Hall

Introduction

This article was developed to offer a company grade level analysis of the active defense, to objectively discuss some of the problems inherent with the concept and to offer recommendations for improvement.

Most US Army officers ascribe validity to the premise that many problems exist in the theory of an active or wide-front defense. Once the problems of defending a 100 km divisional front are coupled with the problems of confrontation with a superior force, poor communications, heavy casualties (to a nation not used to such losses), astronomical logistical problems expected when the enemy has air superiority, and a multitude of refugees clogging main arterials leading to the Main Battle Area (MBA), the validity or feasibility of the concept has to be questioned.

To ensure that our divisions are prepared to conduct and win wide-front defense, rethinking of several procedures previously accepted as doctrine will have to occur in command decision making, communications, the covering force, logistics and maneuver. Although plagued with fallacies, the active defense concept has the capability to work in theory and, with proper leadership and training, in practice.

This premise was proven by the Germans fighting against the Soviet Union in the latter stages of World War II, and consequently the German military experience against the Soviets should be studied in detail. A slightly modified version of their concept of defense against a superior mobile force is precisely what US Forces are practicing. Abstractly speaking, the Germans accomplished much from 1943–1945 due to superior training, initiative, creativity and leadership among their officers.

To conduct the wide-front defense successfully, US Forces must take advantage of the Soviets' traditional weaknesses of flexibility, training, leadership, etc. The remainder of this article will cover some of the principles of the active defense, the covering force, communications, logistics, and finally, ideas for improvement.

FM 100-5

The wide-front defense concept is conceptually outlined in FM 100-5. However, in my opinion, some of the "nuts and bolts" concepts are nebulous, ignored or left to the discretion of the commander on the ground. I would like to discuss some of the lower level concepts and identify some of the problems that probably will occur in this type of defense.

Commanders at all levels will have to face the reality that many units of varying sizes will be cut off from their parent units by a Soviet attack. This problem will have to be rectified through several different methods to include:

Accept that the unit is cut off and surrounded. Supply the unit through low level air drops or create a corridor to rescue the unit. The Germans used this method in World War II; while the link-up was being conducted, the cut-off unit usually took a fearful toll on the forces surrounding them.

Stay in place and inflict the maximum casualties on the enemy. None of us want to accept this philosophy, but we must come to grips with it; if the Soviets conduct a massive attack, successful blocking of penetrations will have to take precedence over rescuing cut-off forces. These forces will have to become islands of defense (such as the Soviets used to great effect in Stalingrad during World War II), inflict maximum casualties on the attacking forces and then exfiltrate to friendly positions damaging the Soviet lines of communication as much as possible on the return.

Casualties

Casualties in all areas of the division sector will be higher than in any previous conflict US Forces have experienced. This is based upon the concept that "there is no tomorrow" and that we must win or lose rather than trade space for time and live to fight another day. There will be few safe places in the division area due to the tremendous range of Soviet rockets and artillery. Therefore, if the enemy can find or detect us, he can also destroy us.

The active defense will be conducted while the enemy has air superiority or, on a best-case basis, air parity. This will cause a chain reaction of events in logistics, troop movement, use of combat aviation and ultimately in maneuver. Initially, Air Force input as a combat power multiplier will have to be reduced as these forces will be trying to achieve air superiority or parity. Additionally, our ability to reconnoiter the enemy through Air Force and Army aviation systems will be significantly hindered.

The Soviets will use blitzkreig tactics, so well-practiced by the Wehrmacht of World War II, complete with lightning surprise attacks, penetrations by mechanized infantry, and breeching and exploitation by heavy armor forces. Lines of communication will be clogged by streams of refugees moving to rear areas, who will be continuously strafed by Soviet high performance aircraft to create panic and fear. The refugees

will seriously impede the lateral shift of combat power and logistical support moving forward to provide, at a minimum, Class I and III to front line units. Soviet commandos and other rear area forces will mine roads, ambush supply columns and eventually force allied commanders to divert combat strength to protect rear areas.

We must recognize that the Soviets view the covering force as exactly that, and will probably plow through it with minimum expenditure of men and material. They know our doctrine, training and technical systems and will therefore save the preponderance of their combat power for achieving the breakthrough in the MBA. Once a breakthrough is achieved in the MBA, the Soviets know that their armor will be free to roam and destroy our rear areas. Recognizing that the Soviets will eventually penetrate the MBA, we should pick the location of penetration, (one of the major advantages of the defense). Then we should control the penetration, build the shoulders strong enough to hold, and at a time deemed appropriate, attack the main thrust with all available forces and weapons systems. In essence, we should concentrate on producing a massive killing zone in which barriers and obstacles are used for channelization, attack helicopters assist in destroying armor, electronic warfare disrupts and confuses lead elements' superior headquarters, and air force and artillery fires are coordinated for maximum destruction at one time. Critical factors in this operation will include timing, decision making, saving assets for use, acceptance of risk and the realization that more than one sizable penetration might occur in the main battle area. To buttress this argument, the Soviets proved many times in World War II that they were susceptible to defensive envelopments and kill zones. In their effort to achieve a breakthrough, they sacrificed good security; they should be vulnerable in this area in the future.

Several areas within the main battle area will be without any combat power. Once again, terrain and environmental conditions will dictate which ground this applies to. Primarily, our forces will need to concentrate on the high speed avenues of approach where the Soviets have the potential to achieve a rapid breakthrough. We must not forget however, the lesson of the Ardennes Forest in May 1940. Any unguarded area must be surveilled to reduce the risk of surprise.

Combat Intelligence

Combat intelligence will be of paramount importance, since it will be through these systems that the division and corps commanders will "see" the battlefield and formulate the decisions which will decide success or failure in conducting the active defense. Every system must be used to ascertain where the main and secondary attacks will come, and to detect ruses, surprises, and any other information available. We must not rely totally on sophisticated technical systems for information as they are susceptible to jamming, deception and atmospheric and environmental limitations. Technical systems must be complemented by human systems to achieve the most efficient and reliable intelligence for the division commander. If combat intelligence fails, the wide-front defense will almost certainly fail. Therefore, commanders at all levels must know the strengths and weaknesses of intelligence systems, or their chance of success will be minimized.

In the confusion of combat in the wide-front defense, resupply will be difficult at best. POL points and ASPs will have to be intelligently located while preparing the battlefield, and at least the initial resupply of vital elements to combat units will have to be conducted during periods of limited visibility, until allied forces establish air superiority. Our soldiers will have to do without luxuries to which they are accustomed as the resupply effort will have to be focused on POL, ammunition and subsistence.

Once the battle starts communication and distance factors will necessitate a change in organizational decision making and responsibility. Due to 100 km of frontage, expected poor communications, and the realization that the division commander cannot move with the heliborne freedom of Vietnam, most decisions will have to be made by the brigade commander on the ground. This involves a major change in organizational structure from an apex shape to flat, and brigade and division commanders will have to live or die with their decisions. The division commander will have to establish the critical area in the MBA, and move complete with TAC CP for communications, to that area and r the war. The other areas of the front will be handled by brigade commanders or one of the ADCs.

The Soviets will seek to capitalize on US Army weaknesses. The weaknesses which are most susceptible include: boundary confusion, susceptibility to night operations, poor OPSEC, especially of rear area installations, poor COMSEC, excessive reliance on communications equipment for command and control and the psychological problems inherent to mass attacks and disdain for heavy loss of life by enemy forces.

"Loading" the Covering Force

The philosophy of "loading" the covering force area with one-third of the division's combat power is questionable. This quarrel is based on the following premises which are hypothetical only:

We assume away our opponent's intelligence. The Russians know our doctrine and our covering force modes. Therefore, they will use only the minimal force necessary in attempting to rapidly destroy the covering force, continue massive deception of the main attack(s) and attack the MBA in nearly full-strength. Losses suffered in the CFA will not even phase the Soviets as their philosophy accepts a heavy loss of lives toward achievement of national aims.

We plan on emplacing heavy artillery forces in the CFA and some argue that all assets "in reverse," such as electronic warfare and engineer units, should be in the CFA. While recognizing the need for artillery support to the covering force, the idea of committing the entire DIVARTY and corps group to a CFA is risky. An excellent chance exists that the Soviets could knife through a covering force quickly, thus leaving significant artillery and engineer combat power cut off in enemy rear areas. A certain amount of artillery and engineer support, as deemed appropriate by the division commander, should support the CFA, but to risk all the eggs in one basket is too extreme. A large portion of artillery and engineer support should be saved for the crucial fight in the MBA. All electronic warfare equipment (jammers) should not be committed during the covering force because:

- When the Soviets attack, a linked data base will be present, but to effectively jam, a reasonably extensive data base is needed. Therefore, the primary effort should be intercept not only to build a data base for jamming but to provide battlefield information to the brigade and division commanders to help ascertain enemy intentions.
- EW equipment demands heavy POL and maintenance support. If EW elements are located forward in the CFA, time/distance factors dictate that logistical support is questionable, thus lessening

capability and increasing vulnerability to cut off.

- EW equipment is irreplaceable and the division commander will require massive jamming in support of his defense in the main battle area. The EW equipment should therefore not be totally risked in the CFA and instead used primarily in the MBA. However some jamming will be required to facilitate ESM and complement maneuver. This string should be controlled by the division commander as jamming could be of paramount importance in springing kill zones in the MBA.

Divisional units preparing positions along the MBA, and in fact, all divisional units, should be under strict radio silence during the covering force. This will assist in denying the enemy location of our main defense and basic intelligence. The basic susceptibility lies in the relative ease in which airborne RDF platforms can pinpoint exact unit locations, and therefore MBA and CP locations.

The division commander and MSCs must communicate however, and can do so if accomplished wisely. First, multi-channel may be used on a limited basis as it's signal is difficult to RDF and intercept. Secondly, the division should invest funds into directional antennas which not only reduce vulnerability to direction finding and intercept, but also boost range, if sited correctly. The division TAC CP should be well forward, in fact, in the vicinity of the covering force CP, for ease of communication and control. The primary means of sending information to division main should be through multi-channel or FM secure using directional antennas.

Using these systems, plus traditional wire and messengers, the division commander and his staff can successfully direct covering force operations in addition to providing concrete guidance to organic maneuver elements in the MBA. The flow of combat intelligence will move from the covering force to the division commander on to the corps commander for active defense decision making.

It is recommended, though, that the divisional FM SIGINT/EW system be allowed to continue to operate, as SIGINT being collected against an attacking enemy probably outweighs risks in transmitting if accomplished correctly, e.g. correct siting, short transmissions and use of directional antennas. SIGINT from ground base and EAD systems will enter into the division commander's decision making, especially if corps aerial DF systems are available.

Division Communications

The division communications system for conducting a four to five brigade active defense was originally structured to support a typical three brigade force and a much smaller front. While communications during an active defense are of key importance, the fact remains that there is neither enough or sufficient quality equipment to support the concept. Therefore, besides waiting until Army technical systems catch up with tactical plans, we will simply have to improve the current system. The following ideas might provide temporary solutions to the problem:

Intelligent siting is a must. Planners must recognize that FM is line-of-sight and cannot effectively transmit through redwood-sized trees. A balance between high, line-of-sight signal sites and low, camouflage shrouded sites must be reached. Theoretically, the antennas should be in a tree line with line-of-sight toward the receiving station and remoted to a well camouflaged and hidden CP. Too often though, CPs are located in low areas with heavy vegetation and subsequent poor communications.

The RC 292 antenna is the "dirtiest" antenna in the inventory. Omnidirectional, it is highly susceptible to both airborne and ground based direction finding, thus neutralization. The solution is to invest in directional antennas or use make-shift directional antennas which thwart the DF effort and, in most circumstances, increases range.

We should work on flexibility. Currently, we are tied to FM for tactical maneuver. Commanders and staffs should be trained to use other methods such as RATT, multi-channel, messenger, etc. While slower, these means are less susceptible to FM restrictions. A thought that could have merit would be to use manual morse which most foreign armies use. Although slightly slower, manual morse would provide increased range and a viable back-up to FM voice nets.

The division commander, through a thought process with his G2 and G3 should determine which brigade faces the least threat and then use its designated signal equipment (multi-channel) to communicate with the covering force CP and back to main. This equipment would then return to the appropriate brigade upon passage of lines.

At least initially, TAC SAT should be available and the division commander will have to determine the location of terminals to fulfill overall division needs. Unfortunately, this system will probably have a reduced capability (if any at all) as hostilities progress.

An aviation battalion usually supports the division. Some of these assets should be used for both aerial relay and messenger service. Probably, though, retransmission will be in short duration and conducted most extensively during limited visibility.

The division should possess a motor messenger system using the motorcycle as its primary vehicle. The Germans used this system in World War II to great effect; we must not procrastinate any longer in learning and implementing a system derived from their experience. However, the system must be fast, have reliable drivers and possess a viable PLL system for repair to be effective. This system will be especially important once we become fully cognizant of the Soviet electronic warfare capability.

Commanders cannot leave the onus of communication entirely on the signal officer. Commanders at all levels must:

- Be cognizant of the capabilities, strengths and weaknesses of communication equipment.
- Locate CPs intelligently to facilitate communication, camouflage and rapid movement.
- Ensure that all FM, RATT and secure equipment is maintained and given technical inspections as frequently as possible.
- Force the command to be communication conscious while actively communicating and denying enemy use of the friendly electromagnetic spectrum. This area will be as effective as the commander influences it to be.

Improve the Active Defense

Several tasks can be accomplished which will improve conduct of the active defense. It is highly advisable that the best minds in the division work on identifying problems and recommending solutions for conduct of the active defense. In this manner, thought will be given to such areas as military police, logistics, communications, intelligence collection, etc, rather than simply maneuver and fire support. Thought-provoking seminars for junior officers could elicit new ideas in addition to providing training for junior officer development. Other ideas for improving the active defense include:

Prepare the main battlefield area before the enemy reaches it. Specifically, the covering force area and the entire division sector should be templated by terrain specialists and intelligence analysts. For example, main and secondary avenues of approach should be identified and potential artillery firing positions located based upon front line advance and firing range for Soviet artillery during the offensive. Additionally, good communication sites for battalion, regiment and division command posts should be identified by communication experts. Logisticians could assist in locating potential sites for battalion and regimental trains and division support elements. Engineers should analyze all streams and rivers and project potential crossing sites that an attacking force could use. Once templating has been accomplished, coordination with various staff agencies should be conducted with the main goal of neutralization of attacking forces while still in the CFA, and assisting in the conduct of the active defense. For example, anti-tank and personnel mines should be emplanted along avenues, water mines placed in rivers where snorkeling or river crossings are anticipated, artillery fires developed using a belt concept of saturation when enemy artillery is believed to be at depicted locations, and selected air strikes or Lance missiles used on trains, CPs or support element locations when other detection systems in the area are cued. Templating is tedious and time consuming but has tremendous potential.

The division should organize and train small (squad-sized) stay-behind forces to disrupt Soviet logistical support moving forward or logering during an attack. These forces, obviously, would have to be highly trained and led by personnel thoroughly schooled in Soviet vehicle recognition, supply actions, demolitions, weapons and of course, survival. Once again, small caches would have to be placed in inaccessible areas during the preparation of the battlefield for combat. If operated correctly, these stay-behind forces could assist in exploiting a Soviet weakness - logistics - or at worst case, cause combat forces to be diverted from the main attack to protect their logistical effort. A coincidental mission could include the forwarding of battlefield information or Soviet order of battle, etc. Communication problems would have to be solved before this could be deemed a viable mission. A plan of this nature would probably lack concrete measurement of success and could be deemed wasteful. Successful execution of this plan, though, could produce negative results on attacking forces.

We will probably incur severe losses both in the CFA and MBA due to enemy fires and maintenance. It is strongly advocated that our tank crews be taught how to destroy Soviet tanks and APCs without their main gun. During World War II, tankers without their tanks were too often turtles without shells: they either died or passed into captivity. This is unacceptable in an active defense; we are so terribly outnumbered that every soldier must do his share of destroying. Our tank crews should be cross-trained to kill tanks with LAWs, activate mines and demolitions, and should be taught how to operate Soviet weapons, grenades, RPG 7s, demolitions, etc, to successfully destroy Soviet men and material while moving toward friendly lines. Each tank should have LAWs attached for this purpose. This is an idea which appears viable, but may be difficult to implement due to the conflicting needs of an armor battalion.

We must assume now that the Soviets will enjoy certain successes and will make some penetrations in the division rear. Consequently, it is important that clerks, communications personnel, cooks and headquarters personnel be highly trained to use their individual weapon, grenades, M60 MGs, and LAWs to help impede a Soviet breakthrough. Equally important is eradicating from these soldiers' minds the philosophy that they will never have to fight. Once again, on numerous occasions during World War II, clerks, cooks and communications personnel had to fight as infantrymen to stem breakthroughs. This is an accepted premise in highly mobile and fluid warfare and we must prepare for the eventuality, rather than suddenly order our rear area personnel to kill Soviet tanks and personnel when the need arises.

Leaders at all echelons in the division should intimately know Soviet weaknesses (as learned through the German World War II experience and as theorized by students of military warfare and academicians). The Soviet Army must not be projected to be infallible as they have individual and organizational weaknesses like most armies. It is obvious that with our constraints in manpower and materials, we must be brighter and more ingenious. We must know our enemy's strengths and weaknesses better than he knows ours. Some of the most obvious Soviet weaknesses that leaders at all levels could exploit include:

• Soviet Armed Forces are often rigid and inflexible. Once given a mission, they frequently attempt to accomplish the mission as originally stated, regardless of the cost. In World War II, once Soviet objectives were discovered, the German Army often caused delays and heavy casualties by forcing the Soviets off their route of march, timetable, etc, by quick improvisation at all levels and knowledge of the weaknesses prevalent in the Soviet command structure.

• In the past the Soviet Army has demonstrated persistently poor initiative throughout all levels. During World War II, this weakness resulted in slavish dependence on orders from above and preference for the fixed and approved formula. This weakness probably derives from Soviet political infusion with the military and base fear. It would appear that if the Soviet communication system was disrupted more than temporarily, this weakness could be exploited to a maximum. The disruption could be accomplished by jammers and/or destruction of Soviet signal centers by CAS or missiles. Soviet commanders could be hesitant to proceed or change plans if their communication links with higher headquarters were neutralized. The stay behind elements referenced previously could be given this mission as well as the mission to destroy the logistical system.

• "Artillery is the God of War" is a quote often attributed to Stalin. The Soviets believe in mass artillery support to the point where it might be a weakness. Artillery preparation for an attack is usually spread across an attack front, is massive and concentrates on main attack areas. Given that one of the fundamentals for the active defense is the successful identification of main attack locations and lateral shifting of maneuver battalions, heavy artillery preparations could assist the defense by eliminating surprise and helping the G2 to locate the main attack.

• The low level leadership in the Soviet Army, especially

among the NCO Corps, is of questionable quality. Additionally, the question of how well the Soviet soldier will fight if not protecting the "motherland" remains an enigma. These two potential weaknesses cannot be judged accurately unless war occurs. It can be speculated however that a well-executed active defense, with the corresponding high casualties to an attacking force will cause morale problems that only exceptional leadership can overcome. Additionally, this weakness could be emphasized by morale variables such as PSYOPS, plentiful mine fields and booby traps, heavy artillery interdiction (especially at night when Soviet troops are trying to sleep), napalm and CBU, and of course, night combat raids. In this sense, the soldiers in the active defense are actually on the offense against Soviet morale.

Combat intelligence systems should be perfected and practiced until leaders at all levels are comfortable with their critical role. Of crucial importance is the downward dissemination of information prior to commitment. This process must be refined to ensure that the maneuver brigades and battalions receive the information being collected by the Echelon Above Division (EAD) systems. Work in combat intelligence, however, must evolve around HUMINT, PHOTINT and SIGINT rather than concentrating on any one element. Accurate and timely combat intelligence will go far in determining the outcome of the active defense.

Maneuver elements in battle positions on the MBA should use wire as the primary means of communication, assuming that there is time available to prepare the battle area. Wire should be used between battle positions, between battalions and to brigades. The wire should be dug in for protection against enemy artillery and friendly tracked vehicles. If FM voice is to be used, the user should move away from battle positions or CPs to transmit. Multichannel should be used, but as minimally as possible, to communicate between MSC, division, corps and the covering force.

Europe is composed of many built-up areas. Key built-up areas astride or adjacent to vital attack avenues should be prepared for strong point defense especially if it is determined that a major Soviet attack could not logically bypass the area. Each town should be defended, building by building and street by street, similar to Stalingrad in World War II. Additionally, all the maneuver division's wartime terrain should be analyzed in detail for built-up areas, and detailed plans made to defend these areas. This would also greatly assist logistics planning, especially in forecasting the need for barrier materials.

All artillery, engineer, ASA, ADA and aerial fire-power support should not be committed to the covering force. Traditional doctrine dictates that these assets should never be left in reserve. An active defense however is not a traditional maneuver or tactic. A divisional size unit is expected to defend an area that is too large. The covering force should have an appropriate slice of combat power to remain consistent with both needs and doctrine. The rule of thumb though, should be to commit only those elements to a covering force that the division commander can afford to lose and still accomplish the active defense mission. These assets, held back for the crucial moment in the active defense, can be construed as the division commander's final trump cards. The active defense also needs a small mobile hard hitting reserve, capable of attacking a flank, plugging a hole or cutting off the head of a penetration. This force could also be used, if necessary, to solve rear area security problems for key installations such as DISCOM.

Plans should be developed and known by all leaders in the division to use the civilian work force extensively to assist in the conduct of the active defense. First, these people have a vested interest in our success; and second, community cooperation, especially under adversity, is a national characteristic with the Germans. With proper coordination, the civilians in our area could help construct barriers, repair roads, implement communication systems, set up hospitals, and offer vehicles for the movement of troops and logistical support. And, of great importance in the concept of mobility, civilians could assist in removing the refugee impediment from main arterials and additionally control the refugees. Rear area security and knowledge of the terrain are two additional significant capabilities of the civilian populace. The civilian work force should be exploited to the maximum extent possible.

Conclusion

In order to conduct a successful active defense, we must train for it . To provide adequate training in this realm of thought, a microscopic examination of all the various parts that fit into the whole concept has to occur. The best brains in the division should brainstorm every possible problem and contingency; learning seminars should be conducted for junior leaders to include both officer and NCOs. The active defense chain should not have a weak link or a "wait until the time occurs" attitude toward deriving successful implementation plans. If one link is weak, through forgetfulness or being "too difficult to solve," the entire active defense mission could fail. A residual effect of creative thought and superb planning is the abstract, but powerful, concept of the desire to win.

Traditionally, the offense is viewed as the only way to resolve a conflict. This is historically accurate. The offense is also imbued with a positive, rather than negative, spirit. Therefore, the idea that the active defense is first a temporary measure prior to an offense, and second, that the division can conduct a viable active defense, complete with "offensive" defensive measures, should be sold to all leaders and soldiers in the division. Currently, it appears that much thought has been given to strategic goals and division/corps command problems, but not enough thought or time has been put into the "nuts and bolts" of the concept. Now is the time for that!

Reserve Military Intelligence in the Total Army

by COL Andrew M. Rutherford

Korea; the autumn of 1950. MacArthur had launched his masterstroke at Inchon, and the communist enemy was fleeing northward with the Allies in full pursuit. It was getting cold now; there were snow flurries, the skies were overcast with clouds scudding low across the eroded hills of the Korean peninsula.

A captain poked his head out of a G.P. tent and looked outside, squinting. There were several other tents in the complex, as this was a division C.P. "Here come some more POWs," he yelled to unseen persons in the tent. The North Korean POWs were led inside the tent by a South Korean interpreter. This was the IPW team for the division. All of the US personnel in the section were recent civilians, Reservists who had been called to duty in August by presidential order.

Within a few months of the initiation of hostilities in June of 1950, Reservists were in Korea augmenting regular forces. Prior to and during World War II, the process had taken well over a year. When the North Koreans attacked, the Army needed men with certain skills immediately; therefore, Reservists were called up as individuals during the Korean War as Reserve Component (RC) units were under-strength and lacked sufficient training to take part in active combat operations. Eventually, however, several RC divisions were mobilized.

During the Vietnam War, of course, no reserves were called to active duty because of a political decision made by President Johnson. Nevertheless, Korea provides a good example of post-World War II use of RCs as part of the total Army. The individual expertise and unit capabilities existing in the reserve are essential to the Army more now than ever, especially in MI where well over half of all units are reserve. In any future hostilities, as in the Korean War, RC units and individuals (we have more than 100,000 personnel in the Individual Ready Reserve—non unit people) will be mobilized in a matter of days; many will accompany Regular Army units deploying to participate in combat operations.

Realizing this, authorities at various levels have taken steps to integrate the RC into the total Army structure as completely as possible. While this has occurred to a certain extent throughout the RC, nowhere is it more emphasized than in RC MI units. How does this differ from the pre-World War II era, or even Vietnam? It is easier understood if we examine the MI reserve status and activities by generic mission.

Tactical MI Units

The biggest problem facing MI units, aside from the obvious ones of funding, equipment and personnel shortages, is training an MI company or detachment as a unit and fully exercising all members in the mobilization mission rather than fragmenting the unit into little groups conducting OPSEC sweeps or checking for noise and light discipline. Ideally, the unit should train in a realistic environment, involving a real world situation in conjunction with a dedicated wartime mission unit.

Presently, training is a real challenge to the imagination and ingenuity of MI unit commanders because supported tactical units invariably train at the small unit level. In many cases the supported tactical units are themselves fragmented and have no way of employing more than minimal intelligence support.

A solution to this problem is AC/RC training opportunities under a program called MI-TRAIN (Military Intelligence Training). Primarily through programs like MI-TRAIN we have been successful in utilizing a large number of our RC units with like AC units.

MI-TRAIN is the vehicle used by our continental armies to effectively incorporate Department of the Army sponsored programs such as REDTRAIN (Tactical Intelligence Readiness Training) with its emphasis on Live Environment Training (LET). The most recent endeavor was a very successful pilot program in support of AC combat units, such as the 24th Infantry Division, Fort Stewart, GA, under the heading of Project SPOTLIGHT. In the Project SPOTLIGHT program with the 24th Division, an MI Detachment (278th MID-Aiken, SC) and an MI Company (273d MIC-East Point, GA) were tasked directly by the division in support of post mobilization missions. This program aligns FORSCOM divisions and brigades with "Real World" opposing forces to provide a central focus for training tactical personnel and exercising the commander and his staff. The immediate benefits of such a project are: more realistic training and improved motivation, higher visibility for intelligence as a vital function and intelligence preparedness for contingencies. Other benefits include the development of a tactical data base on opposing forces, creation of technical training opportunities, the acquisition of special equipment, and the ability to exchange/disseminate lessons learned. Project SPOTLIGHT has been so rewarding that FORSCOM is planning to expand it to other MI units during FY 81.

In addition to Project SPOTLIGHT, taking First Army as an example, MI units train with active units at Fort Bragg, Fort Benning, Fort Drum, Fort Campbell, Fort Huachuca, Aberdeen Proving Grounds and Fort Meade. Army staffs are looking for ways to expand the number of RC units involved with active units. This is not necessarily because they are better soldiers, but because if anyone is going to have the space, time, equipment, school training, or "Real World" mission, it is the active component.

Another program aligning reserves with the regulars is called CAPSTONE. It assigns all RC units to specific roles during contingencies. MI units are assigned to either RC or active units for post mobilization missions. Following Annual Training (AT) this year, these units will train and plan together.

Signal Intelligence/Electronic Warfare Units

Cryptologic assets with the RC are intended to provide specialized support to any combined arms task force organized by a corps or division upon mobilization.

There are 27 cryptologic units within the Continental United States (CONUS) specializing in SIGINT/EW and Signal Security (SIGSEC) support to the RC combat units. The majority of these units are EW companies organized to support a division or separate brigade/ACR. These units are organized under the same MTOE as like

AC units. The RC EW company has the capability for collection of voice and multichannel communications, transcription and analysis of collected information, along with a jamming capability.

The RC inventory includes an Aviation Company (EW), Collection and Processing Company (EW), Target Exploitation (TAREX) Detachment and Security Company/Detachments.

The Aviation Company (EW) has recently received the CEFIRM LEADER system from the 1st Aviation Company (Rear) (AC), Fort Bliss, TX. This unique system was originally designed for Southeast Asia and has a collection, jamming and airborne radio direction finding capability. This unit will support USAREDCOM Joint Exercises within its readiness capability.

The Collection and Processing Company (EW) is a corps level asset with an in-depth data collection analysis and processing capability. At present, this unit works with the Control, Processing, Analysis and Reporting (CPAR) element of the US Army Intelligence and Security Command (INSCOM) CONUS MI Group to assist with the entire RC US Army Tactical Intelligence Readiness Training (REDTRAIN) program and the national intelligence effort.

The TAREX Detachment is a small production oriented unit that is responsive to requirements levied by the Systems Exploitation Team, INSCOM.

The Security Companies and Detachments provide specialized SIGSEC support to high priority RC combat units. This support includes radio telephone and conventional telephone monitoring and analysis, reporting of discrepancies for threat avoidance purposes, identification of unit strengths and weaknesses and specific recommendations for improvement during successive training years.

Training management of these units is accomplished by each CONUSA through a support plan that is published annually. The plan establishes SIGINT/EW/SIGSEC support to selected RC units and delineates responsibilities for the Direct Association, Mutual Support and REDTRAIN programs.

The Direct Association Program matches RC combat units with supporting EW units during Inactive Duty for Training and Annual Training periods. The EW unit is responsive to the requirements and tasking of the combat unit for intelligence and jamming support. This association benefits the RC combat unit by acquainting them with an EW environment and provides the EW unit with training against "live targets."

The Mutual Support Program encourages training assistance between AC and RC like type cryptologic units. This assistance has included mobile training teams (with or without equipment), AC exercise participation, and assistance visits for training, maintenance and logistics, depending upon the particular requirements of the RC unit.

The REDTRAIN Program was originally designed to enhance the training of AC and RC cryptologic specialists. The intent was to provide cryptologic personnel with the proper signals environment for maintenance or upgrading of highly perishable collection, linguistic and analytical skills. The national intelligence effort also benefits through the use of additional intelligence assets. The new AR 350-3 has been revised to include tactical MI unit participation. This will assure the same benefits to MI personnel while providing the program with an all source intelligence capability.

Equipment and personnel shortages are two problem areas that are common to most RC cryptologic units. The units lack the MTOE authorized SIGINT/EW equipment necessary to perform their intended mission. This requires dependence upon obsolete or make-shift equipment with a very limited mission capability.

Alternate training means are being aggressively pursued in order to mitigate equipment shortages. Composite cryptologic unit live environment training at various intelligence collection sites and AC mobile training teams with equipment have been the most beneficial. As an instance, a composite cryptologic unit comprised of personnel from First and Fifth Army units will conduct an intelligence mission for the National Security Agency in Puerto Rico this next summer.

Integration of an entire RC EW company into an AC Divisional Field Training Exercise (FTX) has been requested during AT 80. This would allow the RC EW unit to conduct sidesaddle training with the AC EW unit in a productive Division level signals environment (MI-TRAIN). In 1979, the 24th Infantry Division conducted a Command Post Exercise (CPX) with reserve participants from tactical MI and cryptologic units. The Reservists augmented Brigade and Battalion S2 sections and received valuable training in Order of Battle, Terrain Analysis, spot report formats and communication procedures. Airborne EW support was provided utilizing fixed wing and rotary wing platforms configured with the "cheap fix" jamming system. The Reservists flew coordinated EW missions under the direction of the G2/G3. The impression of the G2 was that the Reservists performed their jobs well, received valuable training in current intelligence techniques and established credibility for future involvement.

As for the future, the entire RC intelligence structure will be reorganized under the Combat Electronic Warfare Intelligence (CEWI) concept. To the reserves, CEWI may mean fewer total intelligence units but a higher enlisted grade structure at better recruiting bases. The question of how or when CEWI is to be implemented within the RC is yet to be determined. In the near term, dedicated funding and emphasis at the Department of the Army level may bring MTOE equipment or suitable training equipment substitutes. It would also provide the funding necessary to maintain and possibly expand the Reserve Cryptologic MOS producing school at the US Army Intelligence School, Fort Devens.

Aerial Surveillance Units

Aerial surveillance in support of RC combat divisions and separate brigades has become increasingly popular over the last several years. To satisfy this needed intelligence, First Army and the Georgia Army National Guard developed a program appropriately called MI-HAWK (from the aircraft name MOHAWK). Working closely with the 151st Aviation Battalion (Combat), elements of the 158th and 159th MI (Aerial Surveillance) companies provided photographic and SLAR missions in support of four divisions and 11 separate brigades during AT in 1977 and again in 1978. Sixth Army also has a similar program with the 1042d MI Company (AS) in Oregon.

Army National Guard MI-HAWK support in its original configuration was limited in AT 79 due to heavy commitments placed on the 151st Aviation battalion; however, limited support on a case by case basis was accomplished. Additionally, the Air National Guard entered the MI-HAWK program and flew reconnaissance missions for Army RC tactical units.

The outlook for AT 80 support will improve over last year. Both the Air National Guard and the Army National Guard assets will be used to support the MI-HAWK program. Concurrently, all three Army National Guard aerial surveillance companies fly in support of Active Army exercises throughout the year. Additionally, live missions are flown for national and state agencies.

Airborne SIGINT/EW

A good example of the total Army concept is the transfer of an airborne Electronic Countermeasures (ECM) system nicknamed CEFIRM LEADER (CFL) from the AC mission responsibility to an RC unit, the 138th Aviation Company (EW). The transfer was completed in September 1979 after several months of extensive equipment inventory at the 138th's home base in Orlando, Florida.

CFL is a nine element ECM system capable of intercept, airborne radio direction finding and active jamming in the 2-80 MHZ frequency range. Three separately configured RU-21 aircraft can be mixed to tailor required missions. Included are two ground control elements and an MSA/34 complex of seven low boy trailers capable of towing three shelters each or a total of 21. These shelters can accommodate mission operations, crypto storage, maintenance positions, etc., depending on the type and duration of support required.

To provide expertise for this unique system, 15 AC personnel have been attached for duty with the 138th Aviation Co (EW). Pilot transition, intercept, direction finding, jamming operations and several levels of maintenance training have been on-going since mid-summer 1979, preparing members of the unit to become proficient in this complex SIGINT/EW asset.

The mission of the 138th is to provide ECM support to RC units and to USAREDCOM sponsored JRXs commencing in FY 81. To develop the necessary expertise in this new environment, preliminary arrangements have been made to provide a mini-CFL mission training support package in FY 80.

Military Intelligence Detachment (Strategic)

There are 58 squad-sized strategic MI detachments scattered throughout the United States. Usually located near a research facility such as a college or university, these units are found only in the reserves.

The primary mission of these detachments is to produce real world strategic intelligence for various Department of Defense and Department of the Army agencies and commands.

Each year the MID(S) complete an appropriate intelligence project during Inactive Duty Training (IDT), which is generally one weekend per month, and AT, two weeks of active duty.

The MID(S) are made up of eight people—three officers and five enlisted personnel. The overwhelming majority of MID(S) maintain a high state of readiness and are manned by intelligence personnel of the highest caliber and professional dedication.

Training is facilitated through a close working relationship with civilian or government organizations. Colleges and universities provide ideal sponsorship for the MID(S). These small, but important units are assigned to various agencies such as DIA and Army commands at theater level. They would be part of the formal organization upon mobilization. The MID(S) can draw on the expertise their personnel have gained through civilian careers and therefore, make a significant contribution to national and Army intelligence. They are also a perfect example of the mission, training and integration that the Army is striving to achieve with all of its RC elements.

The Reserve MI School System

The several tactical and strategic elements of the reserve MI structure have been discussed. There is one other area of reserve MI activity, which does not involve units, but which should be mentioned, as it is of great importance in preparing individuals in their skills, and also as an integrative factor. This is the reserve MI school system. It consists of five separate schools, one in each Army area, one at USAICS (Fort Huachuca) and USAISD (Fort Devens).

The Army RC MI School System is the most immediate and responsive MI MOS training vehicle available to the CONUSA Commander today. It has been invaluable to the RC for more than 30 years in its present form and dates back to General Pershing's day, when he established a school to train interrogators in their mission of obtaining information from Prisoners of War.

The schools are operated by RC officers and enlisted personnel, supported and supervised by the AC. They provide MI MOS and refresher course training primarily for (but also including active personnel) the RC soldiers whose duties require such training. There historically has been an Intelligence School in each Army area, providing doctrinal training in Tactical Intelligence/Order of Battle, Imagery Interpretation, Counterintelligence Interrogation, G2/S2 Operations, Technical Intelligence and Language Refresher Courses. These schools take place in two week (most courses) increments during the summer training period at Fort Bragg, NC; Fort McCoy, WI; and Fort MacArthur, CA. To augment the CONUSA schools, the US Army Intelligence Center and School, Fort Huachuca, AZ, began hosting these courses during CONUSA schools' non-operational periods (e.g., other than the summer AT months). Additionally, the US Army Intelligence School Fort Devens, hosts a school for the RC during the summer, which provides MOS training in EW and SIGINT MOSs.

The Army Commander can tailor the RC Intelligence School System curricula to meet the needs of the intelligence community within his Army area.

The success of this program can be measured by the fact that more than 7,000 students have attended courses during the past four years with slightly less than one-third of them completing their MOS training. This system produces needed skills for Reserve MI personnel, as well as non-MI personnel on intelligence staffs. It is integrative in that the schools are logistically supported by the Active Army which also participates as instructors and students—truly a one Army (and the only one like it) institution.

So there we have it—a picture of how the Reserve MI structure fits into the total Army structure. The difficulties that beset the Reserves have not been emphasized. There are many, some of grim aspect. Nevertheless, each passing year sees more emphasis on RC readiness and greater efforts to mesh all parts of the Army more closely.

The Insurgency to End All Insurgencies: Studying the Insurgent Environment

by LTC Wayne L. Worthington and Howard G. Salisbury, Ph.D.

World War II was widely and mistakenly hailed as "the war to end all wars." Today, many strategists in the US Army are proclaiming Vietnam as "the insurgency to end all insurgencies." Many feel the next war will be conventional and some branch schools no longer teach insurgency and counter-insurgency. As military schools reduce the hours devoted to low-intensity conflict and the pool of personnel experienced in insurgency diminishes through attrition, it seems appropriate to document some instructional concerns. The purpose of this article is to study subversive insurgency.

Subversive insurgency is a form of low-intensity conflict with "low-intensity" used to describe a limited amount of violence and hostility as compared with conventional warfare. An insurgency generally lacks the observed logic and indications of pending actions present on the conventional battlefield (massed tanks, artillery forward for attack, repositioned supplies and donned protective masks). In an insurgency, such indications are rarely available and, when apparent, offer little time for response. Even with intensive terrain evaluation and painstakingly developed operational pattern analysis, the commander and his staff might be left frustrated, clutching at a very fluid and unstable condition, defying both logical evaluation and standard counter-efforts.

To further frustrate decision-making in a low-intensity conflict we are faced with a requirement to precisely define our terms to communicate the basic outlines of the described environment and satisfy legalistic requirements of the US Army involvement.

With the exception of extracting threatened US citizens, military forces have legal grounds for employment under conditions of internal conflict with another country only in subversive insurgency, and then only through very constrained procedures. We should first deal more closely with a definition of subversive insurgency.

Subversive insurgency defines an organized and dedicated effort directed at the overthrow of the existing power system employing a well-orchestrated combination of a true-believing leadership core and mass support to create a new society.

An analysis of various insurgencies reveals each to be unique and situational. Insurgencies can develop in any society, whether developed or developing, although an increasing number of insurgencies focus on urban areas because of the dramatic shift of the world's population into cities in recent years. It has been said that it is easier to deal with the conditions leading to an insurgency than to fight a guerrilla war, but without the insurgency, such conditions lie festering. Additionally, insurgencies are not "communist," although the cold war has often made this appear the case.

In dealing with the subversive insurgency, we should consider its general characteristics. A successful insurgency will require: 1) the forcible overthrow of incumbent military, paramilitary and police structures; 2) the continuous direction of a hardcore leadership element prepared for short-term losses but sufficiently convinced of the ultimate success of the mission to lead recruiting, training and propagandizing efforts; 3) the development of a supportive infrastructure which can provide financial, physical and mental support; 4) the propagandizing and recruiting of individuals with the least vested interest in the existing society as soldiers of the new revolution.

A subversive insurgency normally develops slowly, because the insurgent must get the message out to potential recruits without alarming the government. Additionally, a subversive insurgency is characterized by greater violence when compared with other forms of internal conflict because the goal is not addition or modification but extermination.

Insurgency is not a new phenomenon. There have been insurgencies as long as there have been unpopular governments and internal conflicts. The increase in the number of insurgencies since World War II has been so dramatic, however, that the post-war period has been labeled the "insurgent era."[1] This can be attributed to several complex and inter-related factors including unfulfilled post-war aspirations; glamorization of guerrilla leaders and movements; widespread dissemination of guerrilla techniques; and the establishment of anti-occupation partisan bands during the war which continued their activities following the armistice.

The period immediately following World War II was one of anticipation for much of the world's population as many awaited the end of colonialism and the beginning of self-determination. A dramatic improvement in the world standard of living was expected with world-wide industrialization.

Hopes were strongest among Third World nations where many economic, social or political benefits never materialized due to government corruption, poor education, lack of capital or overpopulation. This sudden denial of the "good life" created considerable animosity among certain segments of the world population with frustrations focused against those governments that were unable or unwilling to help fulfill these aspirations.

The exploits of Lawrence of Arabia became legendary during World War I, and his widely publicized methodology was not forgotten by post-World War II insurgents. The most significant force in the publication, popularization, and dissemination of the "how-to" literature was Mao Tse Tung. His descriptions of his successful insurgency in China became a model for subsequent efforts elsewhere. The advantages of guerrilla warfare (mobility, surprise, financial economy and economy of force) are a common theme of such literature.

Mao's image was reinforced by subsequent successes of Vo Ngyen Giap and Che Guevara. In addition, an avalanche of materials from military and academic writers has dealt with all phases of insurgency.

Once the insurgent leadership core decides to challenge the government, it makes a series of assessments prior

to forming a principle strategy. These include goals and causes, assets and talents available to the insurgents, types and locations of potential target populations, and government response strengths and weaknesses. These necessarily differ among nations and regions.

In selecting a strategy, the insurgent must determine the "proper mix" of three elements that will most effectively achieve his goals. These elements, the insurgency's leadership, the mass organization or infrastructure and the armed element or revolutionary army, will provide the insurgent's power base.

The deployment and utilization of these elements indicates insurgent strategy and general revolutionary philosophy. The strategy can range from the predominant use of nonviolent means to the almost exclusive use of violence. US military doctrine discusses this spectrum in terms of rightist, centrist (mass) and leftist stragegies, referring to degrees of violence and the employment, emphasis and general priority given to power base elements. The terms right and left are not intended to convey conservatism or liberalism. For the purpose of conceptual definitions, the abstracts below outline the effective thoughts involved.

"The Leftist Strategy" attempts to create a revolutionary situation primarily through acts of violence. This strategy envisions a spontaneous uprising of the masses against the government and a struggle of short duration. Organizationally, the insurgent stresses a capability to carry out violence. With the insurgent party and armed elements becoming one, the top leadership has dual roles as political leaders and leaders of armed elements. Little, if any, attention is given initially to the formal development of mass organizations or coalitions.

"The Rightist Strategy" describes an often-employed political strategy characterized by infiltration of members of the insurgency into the society's political and social organizations; manipulation of these institutions to perpetuate unrest; and propaganda, sometimes accompanied by sabotage and terrorism, to discredit the government and influence the populace. This strategy places emphasis on the party, gaining control of mass organizations and the use of coalitions. Little emphasis is placed on development of armed elements.

"The Mass Strategy" envisions a protracted conflict against the incumbent government. Organizationally, it emphasizes an intricate party structure which utilizes mass civil organizations and armed elements. The insurgent party operates from a secure base and establishes a parallel governmental structure that competes for legitimacy with the existing structure of the incumbent government. Through a cellular organizational structure, and a system of interlocking directorates, attempts are made to control all aspects of the movement. Control mechanisms whereby party dominance is assured will take various forms and may achieve a high degree of complexity.[2]

The insurgent will utilize any means to gain popular support, normally exploiting popular grievances in order to prove the government is unable or unwilling to serve the people. Some specific, simplified grievances include land reform in China and the Philippines; language in Bangladesh and Soweto; ethnic differences in Malaya; nationalism in Vietnam and Algeria; racism in Rhodesia and South Africa; religion in Ireland; tribalism in Nigeria, Zaire and Angola; and anti-US imperialism in Cuba, Uruguay and Argentina. Insurgents will attempt to create issues if unable to take advantage of existing problems. This evolved into the insurgent doctrine of agitating and propagandizing (agit-prop) to create a sequence of events insuring government over-reactions, thus the self-fulfilling prophesy of a problem.

The vulnerable population is the single most important element in an insurgency. Without the people, the insurgent has no economic, political or military base of support. The vulnerable population is the most manipulable, based on its general expectations. This is not necessarily the poorest element of the society.

In this light, it is important to look at a group's expectations in order to identify and counter the insurgent effort. A group's aspirations traditionally run far ahead of normal expectations and actually perceived satisfaction of the population. We must, therefore, define expectations as goals and conditions which people think they can attain or maintain, given the means available to them. The key word is "maintain," for experience normally shows that the most vulnerable population is not the poorest group but rather that group which perceives it has made progress it can no longer maintain.

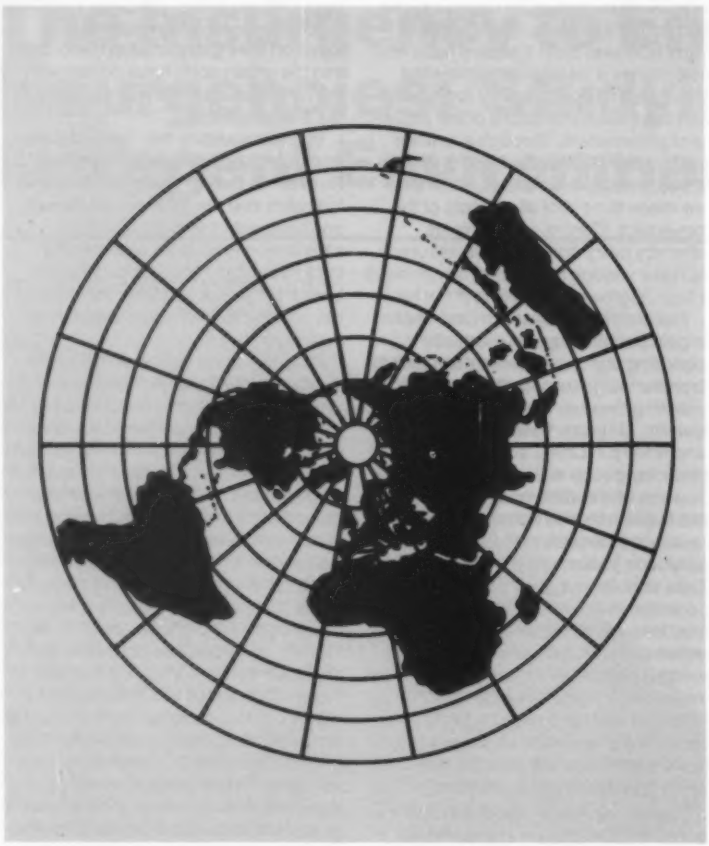
In attempting to identify vulnerable populations, we have great difficulty understanding their perceptions. For example, in a society experiencing increased internal migration, we incorrectly assume that the poor moving to urban centers are the ideal insurgent target although they perceive their lives much improved. We should, in fact, focus on their grandchildren who, born into the urban poor, have no ties with the rural past and feel a better way of life is unattainable.

In understanding this "expectations gap," one should refer to Professor Davies' "J. Curve" theory. This theory indicates that the difference between one's expected and actual needs satisfaction is a zone known as the intolerable gap. The sharper the gap over short periods of time, the greater the chance the individual will be ripe for insurgency.[3]

A nation is composed of many elements and the insurgent must provide or exploit the correct cause for each. As Mao noted, these elements are most often found in areas of prior revolutionary experience and political instability. Population distribution and age-sex composition are also critical to insurgent movements. Contemporary insurgents have attempted to organize all social, economic, age, ethnic and religious groups that could contribute to the struggle for political power. R. W. McColl has noted "Segments of the politically active population that are increasingly recognized and used by rebels but that have been insufficiently emphasized in most traditional population analyses are the intellectuals and students. These groups have always provided the leadership and backbone of revolutionary movements. Intellectuals are prone to experiment with, and often advocate, radical ideas and philosophies, and they spread their ideas to the students. Today, as never before, the number of people under the age of twenty often exceeds the rest of the population. In addition, the many new universities and secondary schools are creating a major new source of masses for participatory revolution. Certainly the increasing frequency and continuation of student riots, even after their violent repression, illustrates the continued importance of youth as a political population."[4]

In order to successfully exploit popular support, an insurgency must have sound leadership. Since the ultimate struggle is between the insurgent leaders and the government, the final outcome will be determined by the group that best organizes the various elements of power. The leadership ability and popularity of Ho Chi Minh in Vietnam were clearly decisive factors in all three phases of that conflict (anti-Japanese, French and US). Douglas Pike has described how the Viet Cong leadership operated in Vietnam:

"Among poor peasants it is neces-



Insurgencies can occur in any society, whether developed or developing. ... There have been insurgencies as long as there have been unpopular governments.

sary to stress the class-conflict viewpoint...Among middle-class peasants, stress our agrarian policies, that peasants will be owners of land and rice fields...Among religious groups, show how the Revolution will bring them concrete benefits in the form of religious freedom, and at the same time create class consciousness and strengthen the revolutionary struggle...Among the intermediate classes, those between the worker-peasant class and the petite bourgeoisie and bourgeoisie, according to individual and group understanding about the NLF and the Party, conduct a clever situation to widen the Front and Party influence, for instance, stress and emphasize the just and correct policies of the Front and the Party...Among the masses, popularize the Front and Party plans and programs, the successes scored in socialist and communist countries."[5]

Bob McColl found that in Thailand, "Insurgents in the northeast are told that they are fighting against an American take-over of the Thai government, whereas the Meo (hill tribes) are told that they are struggling against the ethnic prejudice of the Thai government. Meanwhile, Muslims and Chinese in the southern peninsula demand religious freedom, even regional independence."[6]

The two primary elements of the "mass organization" are the popular organization (civil) and the militant wing. In Vietnam, Ho Chi Minh headed the civil wing while Giap was military commander. The popular organization tends to be nationally-oriented and broad in scope so to appeal to workers, students, farmers, women and special interest groups. Some of the primary purposes of the popular organization are to provide a seemingly legitimate front; divert attention from the Party (if communist); divert allegiances of the population from the incumbent government and in favor of the insurgent; provide a means of social control; employ coercion against selected targets where deemed appropriate; and provide a means of establishing a shadow government.[7]

The militant wing (arm) must be able to protect the population and leadership while capturing and holding territory. The nature of targets and objectives and force needed to fulfill particular missions depends on the stage of the movement. As government surveillance and weapons systems become more sophisticated, however, militant wings turn increasingly to acts of terror, kidnapping, assassination and sabotage.

It is essential to understand the territorial aspects of rural insurgency. A territorial base provides a focal point for the leadership, a place for gathering troops and supplies, and territorial identity for the movement. The base is a haven in which to train and rest, and a safe retreat following anti-government operations. Mao outlined several regional attributes critical in the location of a guerrilla base area: 1) previous experience in revolution or political opposition to the central government; 2) national and local political instability; 3) access to important military and political objectives (provincial capitals and critical resource and transport services); 4) weak or confused political authority (borders between provinces or nations or between police or military; 5) terrain favorable for military operations and security; and 6) economic self-sufficiency. Only rarely does the ideal natural terrain for safety (swamps, mountains or jungles) equal the ideal human-political terrain (targets). Thus, "Although geographical patterns influence certain political decisions and actions, it must be remembered that political objectives ultimately determine where insurgent actions will take place...The major political and military objective of a guerrilla-based revolutionary movement is to continuously plan and to locate its units...in such a manner that an ultimate threat on the government is possible. It is this emphasis on politics and political analysis that determines what is the 'best' terrain or location for guerrilla bases and actions. Surprising as it may seem, the framework in which this choice is made can be identified."[8]

The importance of terrain in estimating insurgent strengths and weaknesses must be emphasized for two reasons. First, many insurgency analysts degrade the importance of terrain and overemphasize the fluid nature of insurgent operation. Although this has some merit during the insurgents' formative stages, control of terrain is vital to the eventual success of the movement. Secondly, Mao, Castro and Giap all take great pains to illustrate the

significance of base areas secure from the government's counterforce.

Giap's concept, referred to as the "Giap Trinagle" depicts the important interrelationship among the four elements. The armed element seizes a particular area and, by providing a degree of physical and psychological security, allows the insurgent leadership element to develop the supporting infrastructure. As the infrastructure solidifies control, it grows to support larger armed forces which in turn expands the base camp.

Giap saw expansion in terms of unit sizes and terrain controlled, envisioning a significant upgrading of operation sophistication and increased specialization of individual and cell talents. He further instructed that support areas developed simultaneously in a variety of locations would eventually be linked by communications and liaison personnel to provide joint operational capabilities that would continuously deplete governmental capabilities, thereby "bleeding" its ability to provide security for the population.

Many strategists have argued that the mobility permitted and the sanctuary provided by the rural landscape are critical to the success of most national revolutions to date. They claim that since the urban environment offers few sanctuaries and inhibits mobility, it will be difficult for revolutionaries to survive within the urban framework. Yet, Colonel Robert Rigg points out that "the concrete blocks of our great ghettos have vertical acreage and horizontal mileage that offer such tactical protection and vantage points as to make future snipers much braver and city guerrillas much bolder."[9] One has only to recall the havoc created by the sniper atop Howard Johnson's in New Orleans in January 1973, to imagine the utter chaos created by a well-trained Viet Cong type of sniper team with coordinated cross-fire.

Another critical aspect of rural guerrilla war is the insurgent's ability to exploit the natural terrain. Yet, urban terrain may be better-suited to guerrilla operations than the rural landscape. Colonel Rigg observed "Man has constructed out of steel and concrete a much better 'jungle' than nature has created in Vietnam. Vietnam's jungles have no elevators and stairwells in their tree tops, but city buildings do—and a multitude of vacant rooms—to which one can flee. No jungle's tree branches are as secure. The degree of security for city guerrillas is almost too imposing to suggest."[10]

The Chinese and Vietnamese guerrillas are widely known for the very effective construction and use of tunnels, yet urban sewer systems provide far more elaborate tunnel systems in crucial locations than ever existed in China or Vietnam. The Tupamaros of Uruguay have proven the effectiveness of utilizing such sewer systems for their operations. "The Tupamaros were literally an underground group. They used Montevideo's sewer system to move around in, and in order to be thoroughly familiar with this, they stole maps of the system from the municipal department. They booby trapped sewer hatches to intimidate searchers and provide warning when the authorities were entering the sewers."[11]

One of the most alarming aspects of urban guerrilla war is the access it provides to a multitude of highly sensitive targets. The urban guerrilla has almost continual access to such targets. A brief analysis of the spatial structure of most cities reveals that the lower-class housing areas are too ideally located for attacking targets, too numerous to guard, including the central business, wholesale, and commercial districts, and numerous transportation and communication facilities.[12]

A basic difference between rural and urban guerrilla warfare is in the use of terrorism. Whereas the basic objective of the rural guerrilla is territorial control from which to eventually strangle the urban cores, the urban guerrilla will rely almost totally on terrorism. Rather than take and hold critical targets, the urban guerrilla is effective intimidating, killing or destroying these targets. Changes in the Ulster political system, the release of several Palestinian terrorists, and the food distribution program resulting from the Hearst kidnapping are a few prime examples of the influence of terrorism.

Mao Tse-tung describes three stages of insurgency through which a rural revolution must evolve. In the initial or "mobile"stage, insurgents operate in small units with isolated base areas, concentrating on building the movement through propaganda in areas of political instability and prior revolutionary experience and attacking only very weak government groups or individuals. The need for early successes, regardless of size, is part of the recruiting and agit-prop technique. The movement evolves into the "guerrilla" stage where he locates large bases in more populous regions with larger units attacking outposts, roads and communications facilities, and building toward a nationally-recognized revolution. The final or "regular"stage is often protracted revolution where units are from battalion to division strength and fight most government units in regular warfare. Major cities, including the capital, are targeted and insurgents control large self-sufficient base areas.

The US Army has also identified three phases of insurgency:

Phase I. Latent and Incipient Insurgency involves the potential threat of subversive activity to situations in which subversion occurs with frequency in an organized fashion. No major outbreak of violence or uncontrolled insurgency is involved.

Phase II. Guerrilla Warfare begins when the subversive movement has gained sufficient local or external support to initiate organized warfare against established authority. Insurgents continue to expand activities initiated in Phase I. Intensified insurgent political and military control over targeted territory and populace characterizes this phase. Guerrilla warfare is used on a larger scale. The establishment of an insurgent government in dominated areas is accomplished as the situation permits. In areas not yet controlled, efforts are made to neutralize actual or potential opposition groups and increase infiltration into government agencies. Intimidation through terror and threat of guerrilla action takes on added significance because of increased frequency of occurrence.

Phase III. War of Movement occurs when the insurgency becomes open war between organized insurgent forces and those of the established authority. It is typified by a continuation and expansion of Phase I and II activities. Large units fight conventional battles with government forces to capture key geographical and political objectives. Should the insurgency succeed, the insurgents initiate consolidation activities.[13]

All phases are reversible, and in fact, temporary setbacks, and even breaking of contact, are part of the tactical effort. Also between geo-political subsets of the target country, all phases can go on simultaneously.

It is often very difficult to recognize an insurgency in the early stages. However, there are some indicators which when proven to exist will confirm that an insurgency has developed.

In addition, indicators can confirm the insurgent's determination to overthrow the government through acts of subversion and guerrilla tactics.

Facing an insurgency, military personnel must be prepared to develop an accurate estimate of a relatively fluid and obscure environment. Because of the general lack of military logic found on the low-intensity battlefield, it is necessary to focus on six factors; including the vulnerable population, the insurgent leadership, the strategy selected by the insurgent to promulgate

his programs, the insurgent organization which equates to the conventional order of battle, government response capabilities and access to extended influence.

An assessment of governmental capabilities to deal with an insurgency is often extremely subjective and obviously very sensitive. Areas of concern deal with military strengths, population data and loyalty, internal stability, political perceptions, economic sub-systems and possible disparities, media effectiveness and control.

Additionally, government flexibility is important. The government must be willing to react in a flexible manner to counter the variety of options available to the insurgent, while reacting positively and with conviction. Anything less will encourage the insurgent whose goal includes constant efforts to discredit the incumbent elements.

In most insurgencies an increasingly important factor is the concept of evaluating extended influence. Although Mao emphasized the need for insurgent self-sufficiency, modern realities indicate that most insurgencies require some form of external support. Types of support range from ideological reinforcement to active military intervention on behalf of the insurgent. Although not all insurgencies are communist, the proliferation of communist doctrinal documentation often provides a form of external influence.

Examples of non-communist support can be found in black African support of the Rhodesian rebel elements, general Arab support for the Palestinian cause, and Angolan support for the Katangan effort in Zaire.

In conclusion, the US Army is overemphasizing mid- and high-intensity conflict training at the expense of low-intensity training. There have been at least 45 major low-intensity conflicts as opposed to approximately 10 mid- and zero-high intensity conflicts. The nature of subversive insurgencies indicates that this trend toward low-intensity conflict will continue. Thus, the US Army should and must be able to provide adequate training in the complex phenomenon of insurgency. US military analysts must remain current on subversive insurgent techniques and the political, social, economic and psychological pressure efforts that often precede overt military confrontation. We hope this article has suggested the critical importance of a continuing emphasis on this form of warfare.

Footnotes

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3. Davies, J. C. (ed.), **When Men Revolt and Why: A Reader in Political Violence and Revolution,** New York, Free Press, 1970, p 133.
4. McColl, Robert W., "Geopolitical Themes in Contemporary Asian Revolutions," **Annals of the Association of American Geographers,** Vol 65, No. 3, July 1975, p 303.
5. Pike, Douglas, **Viet Cong: The Organization and Techniques of the National Liberation Front of South Viet Nam,** Cambridge, MA, The M.I.T. Press, 1966, p 130.
6. McColl, op. cit., p 306.
7. McColl, R. W., "The Insurgent State: Territorial Bases of Revolution," **Annals of the Association of American Geographers,** Vol 59, No. 4, December 1969, pp 613-631.
8. McColl, 1975, op. cit., p 305.
9. Rigg, Co. Robert, "Made in USA," **Army,** Vol 18, Jan. 1968, p 25.
10. Ibid, pp 24-25.
11. Mallin, Jay, "The Military Versus Urban Guerrillas," **Marine Corps Gazette,** Vol 57, Jan. 1973, p 23.
12. Salisbury, Howard, "The State Within a State: Some Comparisons between the Urban Ghetto and the Insurgent State," **Professional Geographer,** Vol 23, No. 2, April 1971, pp 105-112.
13. **FM 100-20** pp 3-3 through 3-5.

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(Continued from page 5)

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43 LTC Wayne L. Worthington

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49 CPT (P) David A. Pagni

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50 Mr. Edward J. Surprenant, Jr.

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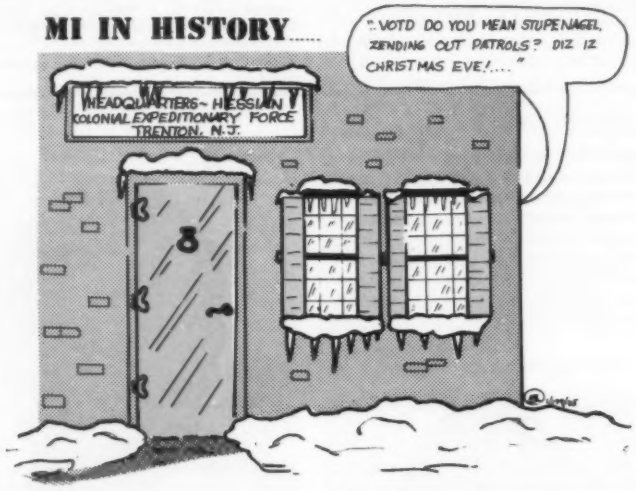
The Military Intelligence Magazine Humor Contest Winners:

Congratulations to the winners of our first humor contest. We had many submissions from our audience; your response made the contest quite a success.

First Prize:

LTC Ed Wheeler
Oklahoma National Guard


MI IN HISTORY.....
"VOTD DO YOU MEAN STUPENAGEL, ZENDING OUT PATROLS? DIZ IZ CHRISTMAS EVE!...."
HEADQUARTERS - HESSIAN COLONIAL EXPEDITIONARY FORCE TRENTON, N.J.

Second Prize (Tie):

MAJ Manuel A. Conley, USA
Fort Meade, MD 20755

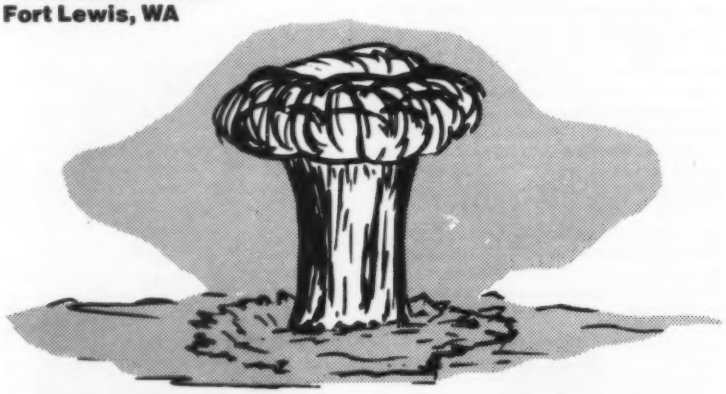
During a recent training exercise a message arrived at the XVIII Airborne Corps G2 section stating that with AWADS, a Special Forces detachment had been infiltrated by HALO, supplied by LAPES, and extracted by CAR. Most of us staff officers knew that AWADS translated to Adverse Weather Aerial Delivery System, HALO signified High-Altitude, Low-Opening parachute operations, and LAPES denoted a Low-Altitude Parachute Extraction System.

But what was CAR?

As the 1700 briefing neared, frantic inquiries were made, references searched, and a liaison officer summoned. Finally, with only seconds to spare, our newly assigned female enlisted clerk found the answer. She informed us that a CAR was a four-wheeled passenger vehicle propelled by an internal-combustion engine—an *automobile*.

Second Prize (Tie):

1LT Daniel A. Pass
Fort Lewis, WA



"Sir, G2 has just confirmed that the enemy has completely withdrawn from this area and is . . ."

Foreign Area Officers and the Intelligence System

by CPT(P) David A. Pagni

As all Foreign Area Officers (FAOs) who've attended the FAO Course at the JFK Center For Military Assistance, Fort Bragg, NC, know, FAOs are not, and should not attempt to be, intelligence agents. Horror stories of FAOs being unceremoniously drummed out of in-country programs by irate host governments, the abrupt termination of FAO training in country "X" due to a blundering FAO's attempt at snooping, and specific Army Regulations prohibiting such activities lead to one conclusion: FAOs had better well not mess around spying! Yet FAOs are expected to write trip and observation reports in the interest of the Army Intelligence System.

Given this seemingly conflicting guidance, many FAOs react conservatively and limit their in-country trip and observation reports to critiques of local sculpture, restaurant guides or regurgitated Area Handbook data. Although these benign offerings fulfill reporting requirements without offending the sensitivities of local nationals or trodding on ARs, they often fall short of providing useful information.

ACSI and DCSOPS analysts reviewing FAO in-country reports too frequently dismiss them as trivial, touristy literalizations or encyclopedic works of passing interest only to geography buffs. Do these Pentagon officers feel that FAO reports can be valuable? You bet they do! Some of the best on-site information during a recent Middle East disturbance was provided by an FAO. FAO reports are read carefully, not for creative writing ability but for content.

At this point, the difference between information and intelligence should be noted. Information is raw data, observations or reports normally supplied by a single source to intelligence operations officers who combine and analyze the material, hopefully processing it into accurate estimates of current situations or forecasts of future foreign intentions. This is termed intelligence. The FAO, then, is a supplier of information. He or she is not an intelligence analyst and certainly not an intelligence agent.

What then is the problem? Many FAOs don't understand where they fit

and how they can be useful to the intelligence system. Day-to-day Army experiences with intelligence prior to FAO training are often limited to quarterly SAEDA lectures or attendance at Staff Intel Briefings mysteriously produced by "MI" types under a veil of secrecy. FAOs used to clearing job descriptions can become easily befuddled by their poorly-defined alliance with the intelligence business. Some disassociate themselves by saying, "I'm just a student; I'm not a spook!" FAOs can be valuable, even critical sources of information without "spying."

During the in-country phase of training, FAOs have sufficient time to sharpen language skills and become uniquely acquainted with the people of their host country. And these people are the FAO's most lucrative source of information.

FAOs too often denigrate their usefulness to the intelligence system because of a suspicion that "Washington is after big stuff." This is not the FAO's job. In fact, FAOs trying to grapple with strategic questions may find themselves the center of an embarrassing international incident.

For years, the Army has taught its officers to "think big" and "get the big picture." Suddenly, the officer enters FAO training and must "think small!" Only rarely will an FAO have access to top foreign officials or revolutionary data. The bread and butter of good FAO reporting lies in the officer's analysis of the attitudes of people, whether in the classroom or on the street.

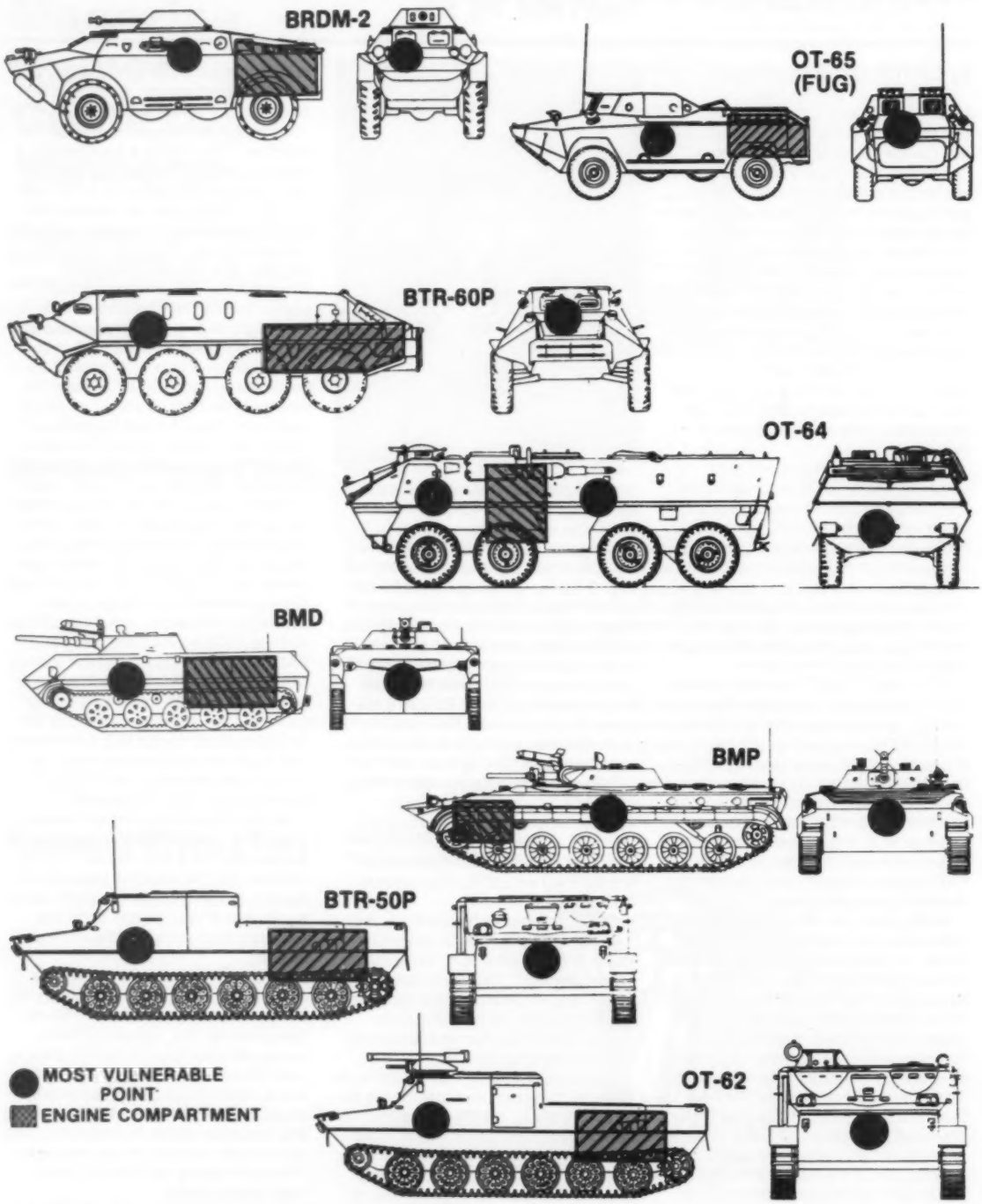
A simple FAO mission statement could be, "The FAO is a traveler/student/guest whose job is to learn as much as possible about his or her host country." It should be no surprise that this job appraisal is welcomed by host country officials. They view the FAO program as a valuable means of offering American officers a realistic appreciation of their country so that they might become knowledgeable and influential spokespersons back in the United States. There is no conflict between the mission of the FAO and the desires of the host country. The FAO's task, then, doesn't entail foggy street-corner encounters, exotic schemes or "black intelligence" arts, but a simpler and more overt job: listen; learn; write.

FAOs have access to friends and social circles that virtually no other Army officers have. Attachés are frequently viewed as "legal spies" by foreign governments. Foreign officers and civilians are more hesitant to engage in free-flowing conversations with these official embassy officers than with the guest FAO. It's gratifying to most host country people that the FAO knows their language and is vitally interested in their country. The FAO doesn't need to fish for information; he can find it all around him. Lectures and informal chats can be rich subject material for FAOs attending foreign C&GS courses.

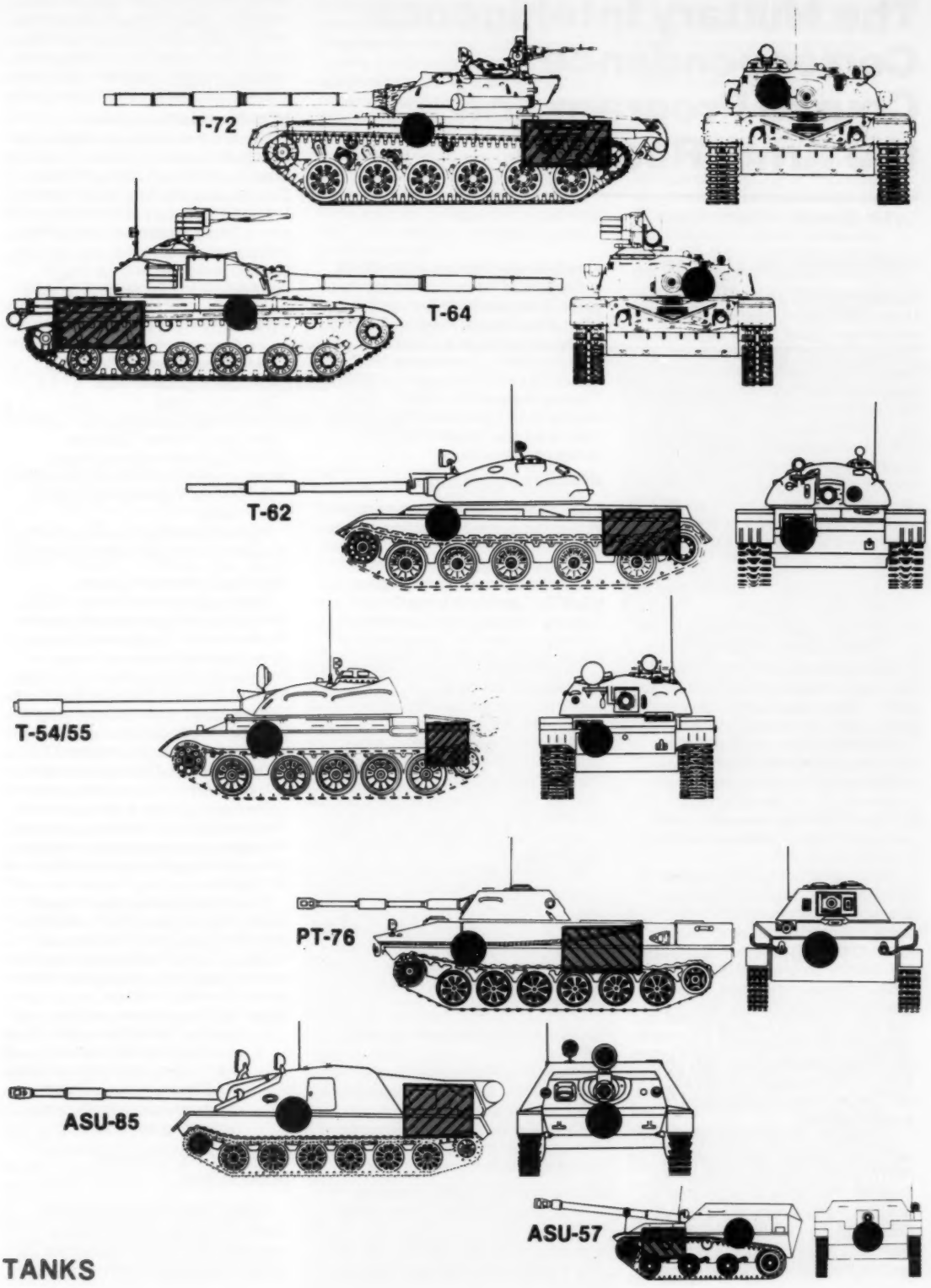
When in doubt about report sensitivity or utility, the FAO should seek the guidance of the Army attaché, the link between the FAO and the intelligence system. Local attachés can clarify what is valuable to Washington and keep write-ups from violating ARs or local taboos.

As a final note, developing writing and analytical skills while in-country as a FAO will ease problems with future assignments. The majority of FAOs serve utilization tours in the DC area, in Joint Commands as Country Desk Officers, as Mil group personnel or even as attachés. These jobs demand writing and analytical ability. In-country trip and observation reports can serve as good FAO self-training vehicles for these latter assignments.

Warsaw Pact



ARMORED PERSONNEL CARRIERS



TANKS

The Military Intelligence Correspondence Course Program and the Army Reserve

by Mr. Edward J. Surprenant, Jr.

Administration and Enrollment

Management and administration of the United States Army Intelligence Center and School (USAICS) Correspondence Course Program is accomplished by the Army Institute for Professional Development (AIPD), United States Army Training Support Center, Fort Eustis, VA. USAICS develops the courses of instruction necessary to support the program and to prepare the instructional material included in the courses. All communication regarding enrollment and administration of the correspondence course program should be sent to:

Army Institute for Professional Development
US Army Training Support Center
Newport News, Virginia 23628

Members of the Army Reserve not on active duty should submit DA Form 145, Army Correspondence Course Enrollment Application, to their immediate commanders for forwarding through the headquarters maintaining records custody to AIPD. Reservists who do not belong to units should submit DA Form 145 to the command having custody of their records for forwarding to AIPD.

AIPD can record questions called in during non-duty hours. If you have a question and cannot reach AIPD during the normal operating hours (0800-1745 EST), then call AUTOVON 927-3085 or commercial (804) 878-3085 and leave a message. Your question will be answered during the next duty day or as soon as the answer can be researched. AIPD can answer telephonically **only** on AUTOVON, so please provide an AUTOVON prefix and extension or a return address.

At USAICS, the primary point of contact for all National Guard, Reserve and ROTC units is the Office of Reserve Training. This office is responsible for program management of the USAR Schools Military Intelligence Officer Basic and Advance Course Program and the Intelligence Training Army Area Schools Program. Instructional and reference materials supplied by USAICS are available through this office. The Office of Reserve Training can be contacted at AUTOVON 879-3135/5551, Commercial (602) 538-3135/5551 or through the USAICS Training Hotline, 879-3609 or Commercial (602) 538-3609. The Training Hotline will also record messages during non-duty hours.

Available Publications

Publications which outline categories of intelligence related instructional material are as follows:

DA Pamphlet 351-20-10, Army Correspondence Course Program, USAICS, Correspondence Course Catalog, February 1979, currently undergoing revision. Categories with DA Pamphlet 351-20-10 include:

Courses for Officers

Military Intelligence Officer Basic Course (MIOBC). The objective of the MIOBC is to prepare newly commissioned Military Intelligence Officers for their first duty assignment and to provide MI Reserve component officers not on active duty, with a means of satisfying minimum educational requirements for promotion.

Military Intelligence Officer Advance Course (MIOAC). The objective of the MIOAC is to provide branch training and a working knowledge in the duties and responsibilities of US MI officers, and to enable the student to complete advanced-level training by correspondence course means.

Courses for Noncommissioned Officers

Intelligence Senior Noncommissioned Officer Course. The objective of this course is to provide advanced career training and general knowledge in military and intelligence subjects to NCOs in grades E6 through E9.

Courses for Enlisted Personnel

Intelligence Analyst Course (96B). The objective of this course is to provide enlisted personnel with a working knowledge of the skills necessary to assist intelligence staff officers in the collection, processing and dissemination of military information and intelligence; the preparation of intelligence reports; and the preparation and supervision of intelligence training programs.

MOS-Directed Subcourses

These subcourses are prepared by the ACCP Section, Extension Training Branch, Individual Training Division, Directorate of Training Developments, USAICS, in support of the Enlisted Personnel Management System (EPMS). The subcourse objective is to provide enlisted personnel with training in tasks critical to their respective MOS as follows:

- 17K–Ground Surveillance Radar Crewman
- 17M–Remote Sensor Specialist
- 96B–Intelligence Analyst
- 96C–Interrogator
- 96D–Image Interpreter
- 96H–Aerial Sensor Specialist
- 97B–Counterintelligence Agent

Note: Enrollment for these subcourses is on an individual subcourse basis.

A brief description (outline) of all subcourses is contained within the catalog.

Training Extension Course

Training Extension Course (TEC) Status List, published monthly by the Production and Distribution Division, Army Training Extension Course Program (ATECP), US Army Training Support Center (USATSC), Fort Eustis, Virginia 23604. The TEC status list is furnished to all schools or activities involved in the development of TEC materials, and to Training Managers at brigade level or above who are involved in long-range training planning. The list includes all lessons currently fielded or in various stages of production extending up to approximately 12 months.

TEC Lesson Availability List, published quarterly by ATECP, USATSC, and distributed to all TEC account holders. This list indicates all lessons currently fielded or undergoing distribution to account holders.

Note: TEC lessons are not distributed by either USAICS or AIPD. They must be obtained from or through the Training Aids Service Officer (TASO) which supports the geographic area in which the requesting unit is located.

Performance-Oriented Subcourses

Today's Army Correspondence Course Program is performance-oriented. Many of the subcourses are criterion-referenced, with emphasis on

job performance. This means that a soldier works toward achieving a predetermined standard, not merely toward obtaining a passing score on an examination. When a soldier passes a criterion referenced subcourse examination, he should be able to perform the tasks covered by that subcourse, as well as any soldier who may have been trained in the same tasks through resident or on-the-job training programs. Some tasks are trained **only** through correspondence courses.

Accreditation

On 17 July 1978, AIPD was accredited by the National Home Study Council (NHSC). Accrediation assures students that the Institute for Professional Development is providing materials and services of the highest quality. It also adds considerably to the academic credibility of the Army Correspondence Program. NHSC accreditation does not mean that credit will be given in every case. There is no government agency that can require civilian schools to give credit. Accreditation does make it more likely that civilian trade schools, colleges and universities may grant credit for completed correspondence work.

The NHSC accreditation did not result in specific recommended credit for each course. AIPD is currently working with the American Council on Education in evaluating each correspondence course to determine recommended credit. This is a lengthy process. As results are available, they will be fielded accordingly.

USAICS ACCP LNO

Queries concerning the Army Correspondence Course Programs as relating to either ACCP or TEC may be directed to the USAICS ACCP Liaison Officer, Mr. Edward J. Surprenant, Jr., AUTOVON 879-3351; Commercial (602) 538-3351; or write to: Commander, US Army Intelligence Center and School, ATTN: ATSI-TD-ITX (ACCP LNO), Fort Huachuca, AZ 85613

Army Reserve Engineers Map Suppliers to the Military

"Pssst! Soldier, need a map?"

If the answer is yes, the place to go is the 758th Engineer Company, Annapolis, MD. This Army Reserve unit has been supplying maps and charts to American military units worldwide since 1976. With 23 requests the first year, the 758th Engineers mailed more than 45,000 maps in 1979 to nearly 300 customers.

There are 250,000 maps in stock: virtually no request is too large or small. A typical drill evening (December 12) found the 758th filling an order for 30 maps from the Maryland Army National Guard and one for 3,650 maps from the 87th Maneuver Area Command in Birmingham, AL.

SFC Calvin R. Franklin, operations sergeant, says the 758th stocks topographical maps, nautical charts and air-crash search-and-rescue maps. The entire world is available in the 1:250,000 Defense Mapping Agency 1501 Series, and the depot carries the US Geodetic Survey maps (1:24,000) for the eastern United States. Maps of Korea, Germany and the Middle East are available.

Commanders wishing to order maps should write the 758th Engineer Company, US Army Reserve, Annapolis USAR Center, RFD 2, Box 270, Broadneck Road, Annapolis, MD, 21401. Telephone orders may be processed by calling (301) 757-1673.

Please provide map series, scale and sheet numbers as well as map name and quantity desired. Turn-around time for maps in stock is from one to two weeks. Special orders take a month. There is no charge for the service.

The 758th carries special edition maps of East Coast installations frequented by reserve units — Fort Drum, Fort Meade, Fort Devens, Fort Bragg, etc., and a limited supply of state and local maps and European highway maps.

The 758th Engineers' map distribution service provides a fine example of the Army Reserve supporting the Total Army while training the citizen-soldier.

TRADOC Bulletin **Battle Reports** Series

The US Army Training and Doctrine Command publishes an excellent series of TRADOC Bulletins called **Battle Reports**, which contain valuable and current information about threat weapons, equipment, and tactics, as well as methods for countering same. Information for these **Battle Reports** comes from simulations, field exercises, and intelligence sources and serves to rapidly disseminate specifics concerning how to fight and how to support on the modern battlefield. Twelve issues of the series have been published to date, the most recent (Aug 79) entitled "Combat Vehicle Engagements." Future issues will discuss Soviet airmobile capabilities, TOW gunnery and tactics, terrain reinforcement, electronic combat, Soviet chemical operations and countermeasures, Soviet river crossing operations and other subjects of current interest.

Comments from the field indicate that many units are unaware of or are failing to receive copies of **Battle Reports** as they are published; confusion also exists concerning how to order additional copies. Units should confirm that block 432 of DA Form 12-11B reflects the number of copies of TRADOC Bulletins (**Battle Reports**) desired for initial pinpoint distribution from USAAGPC, Baltimore. **If block 432 is not completed, units will receive no initial distribution.** Pinpoint account holders wishing to order additional copies of the TRADOC Bulletin series must request same from USAAGPC, Baltimore, using Misc Pub 18 and DA Form 4569. Refer to DA Pam 310-3 and DA Cir 310-1 for current indexes of doctrinal, training, organizational, and "How-To-Fight" publications.

A new distribution system for TOE units, scheduled for implementation in 3d Qtr, FY 80, may alleviate some current distribution problems. This "PUSH" system will eventually replace the DA Form 12 series system, excepting classified requirements, in TOE units only. TDA activities are unaffected and will continue to use the present system.

Suggestions for topics for inclusion in the **Battle Reports** series may come from any agency or individual, and should be addressed to Commander, TRADOC, ATTN: ATDOC-DDD, Fort Monroe, VA 23651.

Warrant Officers

In a recent change to AR 340–15, Correspondence Preparation, warrant officers are to be addressed on all correspondence, both formal and informal, by their rank rather than "Mister." John J. Doe must go by WO1 John J. Doe or CW2 John J. Doe. This overdue change will eliminate the confusion frequently associated with correspondence by clearly identifying civilian or military status of an individual, especially in headquarters employing large numbers of civilian and warrant officer personnel. Warrant officers will continue to be addressed verbally as "Mister."

Foreign Area Officer Program Reserve Component

by MAJ Alfonso Troche

Introduction

What do former US ambassador to Honduras and Colombia (LTC) Philip V. Sanchez; Citibank Vice President (COL) Thomas M. Fitzgerald, Jr.; economist (LTC) Carolyn A. Fost; Chinese scholar (MAJ) Harlan W. Jencks; Chrysler executive (CPT) David J. Barnes; State Department analyst (CPT) Edward B. O'Donnell, Jr.; Dr. (MAJ) Russel E. Greco, Jr.; and attorneys (COL) James R. Alston, Jr., (CPT) David N. Appleby and (CPT) Michael W. Beasley have in common?

All are foreign area specialists in civilian life — and Foreign Area Officers (FAOs) in the US Army Reserve. They are all members of the Army FAO Program/Reserve Component which was established in 1974 to augment the efforts of the Active Army's FAO program.

What is FAO?

The Foreign Area Officer program is an innovative and relatively new US Army Reserve program allowing Reserve and National Guard officers to utilize their knowledge of foreign affairs for the benefit of the US Army.

These officers — some 365 as of this writing — form a pool of expertise that will be activated to augment Active Army FAOs in the event of mobilization.

The FAO program goes back to 1947 and the introduction of the Foreign Area Specialist Training Program (FAS). This program continued through 1966 alongside the Civil Affairs Program. The Haines Board of 1966 recommended that FAS be modified and enlarged to include training in languages, regions, psychological operations, civil affairs and related politico-military subjects.

While the Army deferred any decision on the recommendation of the Haines Board, a 1967 study known as DCSPER 40 recommended that a separate career program entitled Overseas Security Operations (OSO) be established to develop officers qualified to serve in civil affairs psychological operations and related politico-military affairs and that an OSO Reserve Program be established for the Reserve Component. These recommendations were approved in 1968.

In 1969, the OSO program was renamed the Military Assistance Officer Program (MAOP) but no action was taken to extend the MAOP to the Reserve Component.

The objective of the FAOP/RC is to identify and manage existing assets—those officers already possessing FAO skills. By supplementing civilian-gained skills with military schooling, the new program can produce a reserve FAO available for mobilization at a lower cost. Effective management will provide fully trained and qualified officers for high level augmentation positions.

FAS and MAOP were consolidated in 1972 and a year later, AR 604–142 replaced FAS and MAOP with the Foreign Area Officer Program (FAOP).

A 1973 Army study considered the expansion of the Active Army FAOP to the Reserve Component in order to develop a concept of operation for FAOP/RC and draft an AR for the program's implementation.

The study showed that RC officers with FAO skills were available but were not specifically trained, utilized and earmarked for politico-military activity and that trained FAO RC officers could be used for full or limited mobilization and supplemented duty with active forces to provide additional FAO skills on a term basis. Furthermore, the study found FAOP should be extended to the Reserve Component because many Army units requiring FAO personnel have RC counterparts.

On 5 September 1974, Department of the Army approved the publication of AR 135–11 establishing the FAOP/RC program. The regulation, however, did not create additional positions or units but identified units and mobilization designation positions within the authorized force structure requiring officers with FAO skills.

The objective of the FAOP/RC is to identify and manage existing assets — those officers already possessing FAO skills. By supplementing civilian-gained skills with military schooling, the new program can produce a reserve FAO available for mobilization at a lower cost. Effective management will provide fully trained and qualified officers for high level augmentation positions. The program also provides a central source for training and management of program members, Active Army agencies using FAO reservists and Active Army augmentation.

The Deputy Chief of Staff for Operations and Plans has General Staff responsibility for the FAOP/RC. The Commanding General, US Army Reserve Component Personnel Center (RCPAC) has operational responsibility. In November 1974 a program manager position was established at RCPAC in St. Louis, MO.

Selection into the program is highly competitive as more than 74 percent of the officers in the program hold masters or PhD degrees. Officers applying to the program should:

- possess an advanced degree in an FAO-related discipline.
- have a minimum score of 89 on the Defense Language Aptitude Battery (DLAB) for foreign language training or a foreign language proficiency at the C3/R3 level.

Officers must:

- be members of the Army Reserve or National Guard in Ready Reserve status.
- be assigned to a branch other than Chaplain, AMEDD or JAG.
- be of the rank of captain or above with 8 years' commissioned service.
- have at least 5 years remaining prior to voluntary or mandatory removal from an active status unless fully qualified and trained.
- have completed military schooling appropriate to branch, grade and length of service.
- have demonstrated a high level of intelligence, initiative, imagination, judgement and the potential for advancement to positions of greater responsibility.
- have performed in an outstanding manner in a politico-military position or civilian assignment in a related area.
- be uncommitted to another special career program.
- voluntarily participate in the program.

Of the 365 officers currently enrolled in the program, 146 are assigned to

RCPAC, 133 to units and 86 are mobilization designees. An accelerated recruiting program has been initiated by RCPAC to reach nearly 6,000 reserve officer linguists and reservists living overseas. Emphasis is being placed on finding potential participants who are familiar with the Middle East, Asia and Africa.

By grade there are 6 lieutenants, 115 captains, 117 majors, 82 lieutenant colonels, 44 colonels and one brigadier general. They hold 114 PhDs, 158 Masters and 93 BA/BS degrees. There are 126 officers specializing in Western Europe, 74 in Latin America, 60 in the Soviet Union and Eastern Europe, 31 in the Middle East, 26 in Africa, 17 in Southeast Asia, 16 in Northeast Asia, 11 in China, two in South Asia and two undesignated pending selection of an area.

Membership in the program is composed primarily of Military Intelligence, Civil Affairs and Infantry officers although other combat arms and combat support branches are represented.

Upon selection into the program the FAO attends the FAOP/RC Course conducted by the US Army Institute for Military Assistance, Fort Bragg, NC as soon as practicable.

The course consists of four phases: phases I and III are taken by correspondence and phases II and IV through two weeks in residence at Fort Bragg. The course increases the students' awareness of the sociological, psychological, economic and political aspects of their geographic areas of specialization.

Highlights of the course include the Washington, DC Interdepartmental Agency Field Trip and the International Affairs Symposium. The trip, now available to a limited number of reservists on a competitive basis, exposes the students to activities and agencies with which they can expect to have contact overseas. The students visit the World Bank and the Department of State and spend a day being briefed on various State Department functions, including Foreign Disaster Relief Operations and the Bureau of Politico-Military Affairs. They also spend time on Capitol Hill meeting with Congressmen and staffers and visit several embassies. Briefings at the Pentagon usually include a visiting with the Army Chief of Staff or the Secretary of the Army. Visits to the Central Intelligence Agency and the Defense Intelligence Agency are also scheduled.

The International Affairs Symposium, which culminates Phase IV of the RC course, brings together representatives of the academic, corporate and governmental sectors to discuss international issues.

"Reforger 77 has demonstrated that FAOP/RC is an extremely viable program. The active component is deficient in this area and in the future, must rely upon Reserve Components for this type of in-depth knowledge and expertise. The USAR/FAOs were the cornerstone of effective Civil Military Operations during Reforger 77 ..."

Following completion of the FAOP/RC course, participants may be selected for language training, if it is required. Language training varies from two to four weeks each year depending upon the level of proficiency required. Training is conducted at either the First Army Area Intelligence School at Fort Bragg or the Sixth Army Area Intelligence School at Fort MacArthur, CA. FAOs (and spouses) are encouraged to take every opportunity to improve Foreign Language Skills through participation in command language programs, tapes or available civilian courses.

In-country training opportunities are very limited for the FAO/RC participant. Reserve West European specialists and German linguists have been used extensively since 1977 by the Active Army divisions participating in Reforger. Latin American specialists have the opportunity to visit the School of the Americas in Fort Gulick, Canal Zone, Panama, where they interface with Latin American military personnel. Other in-country training opportunities are on an as-needed basis.

CPT Shaun M. Darragh spent 60 days at the School of the Americas in 1978 instructing Latin American enlisted students in commando tactics and officers and officer-cadets in infantry, mechanized infantry and armored tactics and techniques in the classroom and in the field under simulated combat conditions. CPT Darragh received the School of the Americas Certificate of Meritorious Achievement and reports he "had the supreme satisfaction of working with extremely competent and dedicated professionals from the Argentine Marines, Ecuadorian Marine Commandos, Ecuadorian Special Forces, Colombian Airborne-Rangers and Colombian, Bolivian and Mexican Infantry."

There are some in-country training opportunities for officers who reside overseas or who may find themselves overseas and request an ADT tour while they are overseas. Most of these assignments would be working for the military attaché in the US embassy in FAO-related projects. Another opportunity available to officers traveling overseas is a briefing by the in-country military attaché.

COL Earl D. Bevans recently traveled through Italy, Switzerland, France and England, directing a group of students from Baker University. At the same time he received briefings arranged by the in-country military attaché. He writes, "My own observations were supplemented by briefings furnished me in Rome, Paris and London, where US Military Attaché and State Department personnel provided analyses of current military, political, economic and other trends. These briefings were exceptionally valuable in their ability to provide a perspective otherwise unavailable during a relatively short stay in-country such as my own."

CPT James A. Porter of the Massachusetts Army National Guard, spent eight months of in-country training attached to COL David A. Richards, then Army attaché at The Hague. CPT Porter's assignment showed how the National Guard, RCPAC, and the Active Army coordinated their efforts to provide a unique training opportunity for a FAO/RC.

COL Isaac D. Smith, former Chief of Staff of the 1st Infantry Division in Fort Riley, KS wrote, "Reforger 77 has demonstrated that FAOP/RC is an extremely viable program. The active component is deficient in this area and in the future, must rely upon Reserve Components for this type of in-depth knowledge and expertise. The USAR/FAOs were the cornerstone of effective Civil Military Operations during Reforger 77. Therefore, I would like to express my gratitude for providing officers of such excellent caliber."

FAOP/RC participants have proven themselves in the academic field and in the field with the 1st and 5th Infantry Divisions and at the School of the Americas in Panama.

Program participants can now look forward to more meaningful language training at the Defense Language Institute, in-country training in Africa, the Middle East and Asia, and utilization tours with the Active Army on a continuing basis.

Major Troche is currently the FAOP/RC manager at RCPAC in St. Louis, MO.

The Armed Forces of the USSR

by Harriet Fast Scott and William F. Scott, Boulder, Colorado: Westview Press, Inc., 1979. XVI, 439.

Not enough information about the Soviet Armed Forces is available to the United States. And what is available might be too narrow and perhaps less meaningful to the student who desires a comprehensive analysis of the Soviet military apparatus. Fortunately, Harriet and William Scott, two eminent scholars, give us a comprehensive treatment of the Soviet Armed Forces fashioned in the form of a current handy reference book.

The Armed Forces of the USSR is divided into three parts with a total of twelve chapters. Part one focuses on the "Fundamentals of Soviet Military Doctrine and Strategy." It soon becomes clear to the reader that the meaning of military doctrine differs between the Soviets and the Americans. While Americans do not accept the inevitability of nuclear conflict, this is not the case in the Soviet Union. Guided by a doctrine that was developed in the 1950's and modified in the 1970's, the Soviets appear to accept the eventuality of nuclear war and, hence, the necessity of preparing the entire nation and especially the Soviet military apparatus to react to such an event. Soviet strategy is expected to react in the form of sophisticated weaponry (nuclear and/or conventional) and it is suggested that nuclear weapons will play a decisive role in terminating the conflict in favor of the Soviet Union.

Part two of the book, "A Military Force for the Nuclear Age," deals in part with the basic structure of the Soviet military establishment. Unlike the American Armed Forces, the Soviets have five basic components in their military service: Ground Forces, Strategic Rocket Forces, Air Forces, Troops of National Air Defense and the Navy—all of which are under the control of the Ministry of Defense. Of these five services, the Strategic Rocket Forces constitute the primary source for the defense of the Soviet homeland and they are characterized by perpetual readiness. Not surprisingly, the personnel of this particular force "... represent the elite of the Soviet Services." (Text, p. 137)

"A Nation in Arms," the last section of the book, provides a commentary on the relationship of the Communist Party to the Armed Forces. As noted in the book, Westerners would be surprised to know how much control the Communist Party exercises over the Armed Forces, in part, by the KGB. "KGB members are assigned down to company level in the Armed Forces and report upward through their own chain of command." (Text, p. 257) The Communist Party has assigned specific strategic tasks to the Soviet Armed Forces in the areas of nuclear attack, defense, theater, warfare and naval operations. In the last chapter the authors suggest that the most likely direction for Soviet moves ...will continue to be the Middle East and Africa, primarily for the purpose of controlling oil output and deliveries." (Text, p. 383)

In addition to being a handy current reference source, there are several good reasons for reading this book. The comparison between the Soviet and American Armed Forces allows one to discern similarities and differences. The reader is also made aware of the tremendous importance of the Armed Forces in Soviet society. But perhaps the main contribution of the book is that it provides the reader with a framework for some understanding of current Soviet policy in activities which may affect the United States. As noted, in the preface of the book, "If we are to negotiate with the Soviets, it is essential that we appreciate their underlying political military concepts." (Text, p. XIV)

William E. Kelly, Ph.D.
Auburn University

The Fall and Rise of the Pentagon: American Defense Policies in the 1970s, by Lawrence J. Korb, Greenwood Press, Westport, CT, 1979, 192 pages, $19.95.

Lest one be repulsed by the thought of having to pay such a steep price for such a short book, **The Fall and Rise of the Pentagon** is highly recommended as a quick-reading, easily digestible summary of the fortunes of DoD over the last decade. The author, a professor at the Naval War College, demonstrates a knack for reducing usually complex and mystifying issues like budget priorities and development of weapons systems into simple terms understandable and even fascinating to the layman reader.

An especially noteworthy feature is the format of the book. Chapters are arranged chronologically and broken down neatly by addressing each phase according to the impact of involved civilian and military leaders in light of the existing internal and external environments. The book's most compelling quality, its simplicity, might also be its major drawback. The author oversimplifies the environment in which DoD operates to the extent that the "fall" and "rise" phases of the department's history seem to be absolute, irreversible plunges to the extremes rather than the general trends including short-term "ups" and "downs" characteristic of most governmental agencies.

Korb's basic premise is that the first half of the 1970s represented the low point of the defense establishment's prestige and efficacy, brought on by ill-conceived tactics in Vietnam, battlefield atrocities, domestic problems and a hostile international environment. By 1975 however, the Pentagon was able to effect a turnaround and adapt to the post-Vietnam milieu. The author suggests this recovery was due, in part to the changed domestic and foreign situations but claims that "the actions of the civilian and military leaders" of DoD were "the crucial variable."

On this point, Korb definitely agrees with historians who assert that the event is shaped by the man rather than vice versa. I do not totally disagree, but I do feel the author overstates both the admirable traits of the leaders he admires (principally Secretaries of Defense and members of the Joint Chiefs of Staff) while overstating the bad qualities of those he does not. Just like a western movie, all the Pentagon really needed was for the bad guys (e.g., McNamara, Kissinger, Radford and Westmoreland) to be taken over by the good guys (e.g., Laird, Schlesinger, Rumsfeld, Moorer and Brown).

Although Korb provides persuasive data to back up his claims, particularly through the judicious use of tables on such indicators as budget successes, his credibility is shaken somewhat by a few gratuitous and inaccurate comments about the military. He wrongly labels the 101st Division as "The Big Red One" and misspells JCS Chairman Earle Wheeler's name repeatedly. He also unfairly criticizes the service academies (prior to 1969) as being "training schools rather than colleges," with curricula "almost devoid of socio-humanistic electives," and tending "to produce individuals with a narrow, rigid outlook." Had Korb observed the academies firsthand rather than blindly quoting Admiral Elmo Zumwalt, he might have formed a different opinion. Korb is also convinced the military is overpaid compared to the civilian sector and cites this as one of the "unsolved problems" facing the Pentagon even after its rise from the ashes. In contrast, he sees the all-volunteer concept as an unqualified success rather than a problem.

In all fairness, however, Korb is decidedly not anti-military. In presenting a more balanced view of civil-military relations than most others who have written on national security policy-making, he denounces "congressional overcontrol" of the military while simultaneously lauding recent JCS members for their honesty, diligence, broad non-partisan backgrounds and ability to stay in line with their civilian bosses without being "yes men."

A final point—and this is an unavoidable problem plaguing all works that attempt to be specific on current programs—the book is already outdated on at least one minor point when it discusses development of the mobile missile system. It mentions four MX "approaches" under consideration by the Pentagon, none of which is the approach now most likely to be employed, the "race track" concept. Consequently, the reader should interpret the facts outlined in such a book accompanied by other updated sources.

Overall, **The Fall and Rise of the Pentagon** is an excellent short history of the defense establishment and its military, monetary and personnel problems in light of constraints imposed by the non-defense sector. Despite its tendency to reduce this history to a black-and-white snapshot, the book is both colorful and interesting as well as a useful addition to the background reading of any DoD employee.

CPT William C. Spracher
Department of Social Sciences
US Military Academy

Hitler's Generals

by Richard Brett-Smith, Presidio Press, 1977, black and white photos, maps, $12.95.

Books which are painstakingly researched, despite their enormity of detail and ponderous facts, often prove a genuine pleasure to read. Richard Brett-Smith's work on 82 German Army and Air Force generals of World War II definitely qualifies as such a work.

The overwhelming portion of the narrative is devoted to Army generals or those of the Luftwaffe who commanded ground troops (i.e., Kesselring and Student). Each officer's career, achievements and personality is told with something less than impartiality although Brett-Smith's admitted admiration for many of these great Captains of the Second World War is usually well-founded. A striking anomaly, though, is his deference to the anti-Nazi generals, those "brave spirits (who) did listen to their consciences and decided that Hitler was an evil genius to Germany who must be removed."

Yet these officers were able to successfully subdue their consciences and use the same treacherous techniques so common to Hitler when they plotted their Fuhrer's murder. Indeed, **Valkerie**, the codename of the 20 July 1944 plot to kill the Leader resulted in the serious injury (and could have resulted in the death) of several German staff officers who were not ardent Nazis or even sympathetic toward them.

Understandable empathy can be seen on the author's part when he discusses von Rundstedt, von Brauchitsch, Blaskowitz, and others of "The Old Guard." Older men, many from established Prussian families, many devout Bavarian Catholics, threw in their lot with Hitler in the early 30's as they saw Germany, through the Army, regaining both the dignity and prestige lost at Versailles in 1919. These officers, reared in the Junker-royalist tradition were accustomed to military life as a purely apolitical phenomenon and were completely unprepared to deal with the spectre of evil incarnate in an Adolph Hitler and totally inept in political intrigues or bureaucratic machinations.

One can dispute the conclusions to which Mr. Brett-Smith arrives and his characterizations of the generals about whom he writes, but even the sternest critic, will have to admire him his research and passionate detail.

Chris B. Timmers

The Role of the Fighter in Air Warfare, by James J. Halley, Ziff-Davis Publishing Company, 1978, Black and white and color photographs, 152 pages, $12.95.

The Role of the Fighter in Air Warfare presents milestones achieved in the ingenious and often stubborn attempts at the creation of the perfect fighter aircraft. During World War I, the first fighters were reconnaissance aircraft with mounted machine guns. From this beginning, the role of the fighter in air warfare developed through the technological advances of World War II, into the space age, and the 70s.

Halley explains the technological development of fighter aircraft as well as the related scientific developments which have contributed to the obsolescence of every fighter aircraft ever built. There appears to be no end to the one-upmanship that has fueled the development of fighter aircraft, except for the skill and tenacity of their pilots. **The Role of the Fighter in Air Warfare** is full of examples of trained pilots in inferior aircraft who have won when outnumbered and outgunned.

The most significant US military operation involving fighter aircraft was the Battle of Midway, in June 1942. The Japanese and US fleets exchanged countless sorties of fighter aircraft in an attempt to locate and destroy the opposing fleet. All 272 Japanese fighter aircraft were lost. The US lost half its carrier fleet and over 136 aircraft but the efforts of US fighter pilots were instrumental in stopping Japan's advance in the Pacific.

In the 70s, fighters and fighter bombers have become pawns in the world of international diplomacy. US aircraft, from the aging F-4 Phantom to the new F-15 Eagles, have been provided to developing nations as part of the political bargaining process. But as every world power has discovered, superior aircraft without a pool of highly trained and experienced pilots are of little value in war.

Ted D. Whitley
CPT MI
USAICS, DII, AID

1940 The Last Act: The Story of the British Forces in France after Dunkirk,

by Basil Karslake, Hamden, Conn.: Archon Books, 1979, xii + 283 pp, 18 illustrations, No price listed.

1940 The Last Act is the story of the British Expeditionary Force and its Lines of Communication in France during the period May 10 to June 20, 1940, and the ineffectiveness of the available troops because of the lack of a unified British command and the lack of experienced senior commanders. It is told, with a chronological sequence, by means of narrative and is a welcome addition to the available accounts of the war in France. The author has made extensive use of certain British contemporary sources such as diaries and operational reports. He has added an interpretation and a critique of the events and circumstances that led up to the evacuation of troops and matériel from the Cherbourg peninsula in June 1940. Whereas many other histories of the beginning of World War II have focused on the blitzkrieg of the German panzer units through Luxemburg, Belgium and Holland, the race to the Atlantic coast and the evacuation of British troops from Dunkirk, this work brings together the "events that did little credit to the individuals who participated in them and the references to individuals who had signally failed

in their duty."

Quite justifiably, the book begins with September 3, 1939, describing the growing concern of the British government with the advances of the Third Reich and the initiation of military planning between the British and French Army staffs. The occurrences that led to the decision to provide fifteen British divisions by the end of 1940 are clearly discussed. The subsequent complex happenings that surrounded the arrival of the British Expeditionary Force—to be under the command of a French general—and the Headquarters, Lines of Communications in LeMans, France in September 1939 demonstrated the British War Office's failure to provide a single commander with an operational staff and sufficient authority to prevent the dissipation and misuse of the troops; a condition which lasted for nine months.

The author's claim to completeness is based upon inclusion of useful chapters on the execution of Plan "D" (the British Expeditionary Force's advance to the River Dyle); the recall, on May 21, 1940, of Lieutenant General Sir Henry Karslake to take command of Lines of Communication in France and to begin the evacuation of matériel, which had been stockpiled in depots in France since 1939, to England. The accounts of Sir Henry's reorganization of the Lines of Communication into a separate command, and the herculean task performed in "backloading" supplies to England until his curt dismissal by Lieutenant General Sir Alan Brooke on June 13, 1940 (the reasons to this day still unexplained), are described clearly, phase by phase, with commendable attention to details.

The inclusion of excerpts from diaries is a notable feature throughout the work. The author pays a handsome tribute to the role of the British and Canadian troops in their struggle against the Wehrmacht, but little mention of the quantities of matériel that was saved from falling into the hands of the German army, which becomes not much more than a "drum and bugle" account of little-known events. To be fair, it is difficult to obtain substantial hard information on this aspect of the Fall of France and the withdrawal of the British Expeditionary Force. Any attempt to reassess the valiant defense of the British and French armies against the panzers of Rommel and Guderian, without giving equal billing to the logistical troops, is like putting on *Showboat* not without the ship's crew perhaps, but certainly without Captain Andy. In a similar, though lesser, way, the role of the Royal Navy receives no treatment.

Indeed, a slight disappointment that may be leveled at this book is the lack of sufficient maps for the reader to follow the course of the battles, the marches, and the disposition of forces. There is a danger for military historians to relate the details and movements of battles and campaigns without the benefit of sketches or maps and this book does not avoid this trap.

Among the strengths of the work are the comprehensive appendices which include the bibliography, the references, the order of battle of the Lines of Communication, the Report of Lieutenant General Sir Henry Karslake on Operations in France, the Breton Redoubt (the alleged plan for Allied resistance near a major Atlantic port in France), and the Armistice Misunderstanding of June 17, 1940. These are a mine of pertinent information. A final summarizing chapter draws all the threads together in a neatly woven cloth. While it has to be recognized that one of the principal causes of the Fall of France was the weakness of the French forces, nevertheless the author is quick to assert that the British cannot escape sharing some of the blame. Karslake is resolute in pointing out the patchwork-quilt Allied command structure and the professional jealousies within the British Army that prevented many of the competent officers from command. The student of military history will find much in this book on strategic and tactical considerations to whet his appetite. On almost all counts, however, this is an excellent book and strongly recommended.

Reginald W. Hall, Col (Ret.)

Soviet Geography: Review and Translation, published monthly (except July and August), $89 annually; **Polar Geography,** published in January, April, July and October, $49 annually. Theodore Shabad, editor. Scripta Publishing Company, 1511 K Street, N.W., Washington, DC 20005, in cooperation with American Geographical Society.

These two journals should be in intelligence libraries everywhere and on the reading lists of intelligence officers who are interested in the cultural and physical geography of the Soviet Union and of the Arctic and Antarctic areas in general. **Soviet Geography** was first published in 1960, initially as a translation journal, although in recent years non-Russian articles are being published while the magazine preserves its basic focus as a translation publication. **Polar Geography** was also first issued, in 1977, as a forum for translations, but beginning in 1980 will be renamed **Polar Geography and Geology** and thereafter invite original articles in addition to translations.

In **Soviet Geography** the reader will find articles such as "Economic Development and Environmental Change in the Western Siberian Plain" written by Soviet scholars and first published in **Vestnik Moskovskogo Universiteta, geografiya**, as well as studies such as "Geothermal Energy Development in the Soviet Union" by Western scientists. **Polar Geography** also offers data on the Soviet Union, but additionally includes materials about other northern hemisphere areas and Antarctica. Typical titles are "Aspects of Water Transport in the Soviet Northeast" and "Identification of a New Marginal Sea in the Antarctic."

These two publications regularly present information of direct concern to the many facets of strategic intelligence, in the economic, sociological and transportation components, through the various articles. Equally useful are "News Notes" written by the editor, Theodore Shabad, in each issue which report such events as the openings of coal-shipping terminals and start-ups of hydroelectric plants. As a bonus value, both **Soviet Geography** and **Polar Geography** incorporate a "Current Literature" feature which lists relevant articles in both foreign publications and other translation journals.

Subscription prices are high, working out at $8.90 per issue for **Soviet Geography** and $12.25 per issue for **Polar Geography**. Even so, each number of each volume, for both, is in many ways an interesting and informative book, well worth the investment for library acquisition.

William S. Hanable
Lieutenant
US Naval Reserve

Guns in the Sky: The Air Gunners of World War Two, by Chaz Bowyer, New York: Charles Scribner's Sons, 1979, ix + 182 pp, 120 illustrations, $14.95.

In June 1912, Captain Charles DeF. Chandler, United States Army, cradled a Lewis machine gun between his legs in a Wright Model-B biplane, piloted by Lieutenant DeWitt Milling, USA, and fired 47 bullets at a canvas sheet 300 feet below scoring approximately six hits. On a November afternoon in 1913,

Marcus D. Manton piloted a Grahame-White biplane over Bisley, England, carrying Lieutenant Stellingwoerf, a Belgian, hunched over a crude seat below him. The Belgian held a Lewis machine gun between his knees and fired at an 8-meter square sheet on the ground from a height of about 300 yards. In his first pass he registered 11 hits out of a 25-round burst.

If you like your history presented in a digestible manner, then **Guns in the Sky** will satisfy your appetite. Chaz Bowyer brings to aerial gunnery a skill approaching A. J. P. Taylor's in characterization and in capturing the atmosphere of the growth of aerial gunnery and the romantic magnetism of the unsung heroes of the air war over Europe in World War II. The "art of aerial gunnery," writes Bowyer, "was still regarded generally as a mere adjunct to the aeroplane's prime role, and training of Observers in specific gunnery was virtually non-existent by the close of 1915." Thus, Bowyer's story combines the trials and tribulations of the early pioneers in aerial gunnery in the Royal Air Force; the frustrations of a major power (Britain) committed to the strategies and tactics of the past; and the determination of the "renegades" to press forward with an innovative weapon. Reading the book, one can't help but marvel at the sheer amount of pertinent data provided by the author. Drawing on his 26 years of service in the RAF, Bowyer takes the development of aerial gunnery in a logical sequence from its nativity to its demise just after the end of World War II. But the book is far more than just another history. This carefully written and humanistic book is especially notable because it has been conceived with style. Bowyer never lets the reader forget the air gunner's role in the growth of aviation and, ultimately, in the attainment of air supremacy over the German Luftwaffe. In addition, Bowyer presents a comprehensive survey of the variety of trials experienced by the scientists, engineers, and aviators in the unfolding saga of aerial gunnery.

The material is well-organized, and provides a clear view of the life of an air gunner, particularly during the Battle of Britain, as is possible in dealing with such an enormously thrilling and interesting subject. Bowyer does not forget the significant role played by the United States Army Air Corps and its air gunners in the European War, as well as the war in the Far East. With deference to the long-standing criticism by outsiders of American air gunners being obsessed for claims of enemy aircraft shot down, Bowyer argues that the RAF's early patronizing of the Yanks quickly "changed to sheer admiration" for the exemplary actions of the 8th Army Air Force's air gunners. The final scene of the drama of aerial gunnery was in the Pacific Theater of Operations where it reached it zenith.

Bowyer has written a work of high quality. He has carefully steered his own course through the many controversies. His book is never ponderous reading. Some may be dismayed with the amount of space given to the British air gunner vis-a-vis the American one. Yet anyone who was an air gunner, no matter what his country or branch of service will find the book rich, hearty and human beyond his wildest imagination. The heroics of the air gunner can merely be mentioned. All the more reason for one to read the book.

Reginald W. Hall, Col (Ret.)

Afrika Korps at War: Volume 2 — The Long Road Back

by George Forty, Charles Scribner's Sons, New York 1978, 128 pp, $14.95

The end of 1941 saw the **Deutsches Afrika Korps** (DAK) in Tripolitania, licking its wounds and preparing for another all-out drive on Cairo and Alexandria. This second volume of **Afrika Korps at War** continues the story from January 1942 and details the history of Rommel's efforts to destroy the British Eighth Army.

Rommel had no intention of remaining on the defensive any longer than absolutely necessary. As soon as he had received sufficient new equipment, fuel, and reinforcements, he attacked with the same tactical skill he had demonstrated in 1941 and was within a stone's throw of winning the biggest prize of all — the Suez Canal.

Such an achievement would undoubtedly have changed the course of the war. But dogged British resistance gradually wore down the DAK as German lines of supply became more and more attenuated. The thrust toward Alexandria was halted and from then on the end was in sight for the DAK and their Italian allies. It was left to a newcomer to win the greatest desert battle of all, and Montgomery's name will forever be linked with El Alamein.

Thus, apart from the exhilarating start, this book should tell the reader a tale of defeat and despair, but few armies have ever carried out a more dogged, hard-fought and orderly withdrawl over such difficult terrain. Even when the Operation TORCH landings had taken it in the rear the DAK was still able to show its teeth at Kasserine.

The author continues his successful treatment of the desert campaigners in this volume, adding many hitherto unpublished photographs and personal accounts to his lively and authoritative text. This book is highly recommended reading to the military historian.

MAJ Reginald H. Turner
DTD, USAICS

The Washing of the Spears,

by Donald R. Morris, Simon and Schuster, New York, 1965.

The Washing of the Spears is a valuable addition to any military library. It covers the time from the original colonization of South Africa through to the Zulu Wars of 1879. It covers the rise of the Bantu nation and the northeastern expansion of white settlers from the Cape into Zulu country. Importantly, it provides an understanding of the cultural heritage of Africans living in the area that would eventually become Rhodesia and South Africa (and other nations).

The central figure in the Zulu nation was named Shaka. Shaka unified the Zulus and modernized the Zulu Army through the establishment of the regimental system. All young men served in a regiment until released from duty. Each regiment had a name and shield pattern. Through the efforts of a missionary, a complete "Order of Battle" book was prepared.

Eventually, the British began to clash with the Zulu and this book discusses in some detail the correspondence between the Home Office in London and the colony in Africa. The history of the war presented in this book is fascinating and too lengthy to recapture in a short review.

The lessons learned by the British, however are well worth remembering in today's Army as they seem to be forgotten over and over by new troops in their first encounters with the enemy.

Though the book was difficult reading at first, it became much easier once I had gotten into it. Once I finished, I returned to several sections to read them again.

The Washing of the Spears covers well a period of world history understood by few. It offers valuable insights into historical problems in Africa which have continued to this day.

MAJ William L. Howard, USAR

(continued from page 3)

Editor,

I have just finished reading LTC Collins' thoughtful essay on "Military Intelligence into the 1980's."

In my judgment, Colonel Collins is right on the mark with many of the attitudinal and behavioral changes suggested to improve military intelligence in the decade ahead. His arguments in favor of more realistic, productive and cost-effective approaches to satisfying intelligence requirements are especially persuasive (even to Infantrymen like me who do "want to know everything!"). Similarly, his plea for fulfilling the basic and learned needs of intelligence personnel in order to retain their valuable services for a full career is both cogent and compelling. Moreover, it applies, *mutatis mutandis,* to other branches as services as well.

The accolades above notwithstanding, I do differ with Colonel Collins on one point—his assertion that "Specialists—not generalists—are needed in today's world." I submit that we need both! For example, dedicated intelligence specialists (as well as personnel, operations, logistics and other specialists) play a vital role in the combat commander's decision-making process. His chances for success turn largely on the quality of information, estimates, advice and recommendations these valued counselors give him together with his own ability to synthesize these diverse (and sometimes conflicting) views into sound decisions and workable concepts. The information explosion alluded to by Colonel Collins demands even greater reliance by the combat commander (generalist) on his staff advisers (specialists). I suppose the OPMS purists would argue that command itself is but a subset of the larger specialty (Infantry, Armor, etc.). Technically speaking, they are right; practically speaking they are dead wrong. The point, it seems to me, is that specialists and generalists both play crucial, complementary roles in the military equation.

On balance, Colonel Collins and I agree much more than we differ. I applaud his essay and those that follow his theme. Moreover, I compliment you and your staff on an excellent, timely issue. I look forward to the next one.

THOMAS B. VAUGHN
LTC, IN
Professor of Military Science
Washington and Lee University

Editor,

I am writing to renew my subscription to your excellent (and rapidly improving) magazine. As a reserve officer, I find it to be my best resource for keeping up with developments in the active duty intelligence community. I am in hopes that, in response to your recent readership survey, you will publish more articles dealing with intelligence training in and for the Reserve Components.

Michael R. Hathaway

I hope you enjoy this issue as *Military Intelligence* explores the theme "Military Intelligence: The Reserve Components."

Editor

Internal Security Weapons and Equipment of the World,
by Michael Dewar,
Charles Scribner's Sons,
New York, NY, 1979, $12.50.

Since the end of World War II, many governments, para-military and police forces have found it necessary to develop an arsenal of internal security weapons to combat crime and terrorism in the modern world. In this book, Michael Dewar differentiates between internal security weapons and military equipment. Dewar concludes that any equipment designed for or used in internal security should be considered an internal security weapon and has produced a volume outlining present and future equipment designed for use in internal security.

Dewar begins his exposition by noting the growing importance of internal security vehicles for use in border patrolling and situations in which there is a high probability of direct or indirect gunfire. Dewar outlines the specifications, development process and variations of each vehicle and discusses its employment throughout the world.

In a section dealing with anti-riot equipment, Dewar covers everything from teargas to gas masks and riot weapons as well as several types of body armor and shields.

Since bombings and bomb threats are two of the most horrendous of all terrorist activities, Dewar contributes two chapters of his book to bomb detection and disposal equipment.

Outlined in the bomb disposal section are several types of self-propelled, remote-controlled bomb disposal vehicles as well as bomb disposal trailers and bomb suppression blankets.

Among bomb detection gear presented is x-ray equipment, bomb detectors and metal detectors used by various agencies, primarily airports, to thwart the plans of terrorists.

Dewar explains new types of perimeter protection being used by various governments and agencies, consisting of intruder detectors, television surveillance equipment, magnetic sensors and microwave surveillance systems.

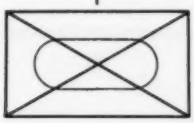
In the final two chapters, new special communications and surveillance equipment are described and illustrated. Everything from handheld transmitters to cipher equipment and scramblers is described, reflecting a growing need for new high security communications. Dewar notes that surveillance equipment like night viewers, weapon sights and radar is necessary in order for successful internal security operations.

With 127 pages and more than 150 illustrations, Dewar has put together an exceptional work allowing the reader to see the equipment and learn its specifications and uses. **Internal Security Weapons and Equipment of the World** is invaluable to professional security forces, police departments and para-military forces and must-reading for all internal security personnel.

LT John Schmidtbauer
Co G, USAICS

Warsaw Pact

MOTORIZED RIFLE COMPANY



10 x BMP

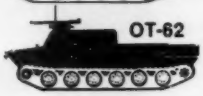
COMPANY HQ

1st PLATOON

2nd PLATOON

3rd PLATOON

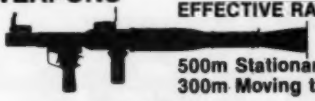
MOTORIZED COMPANY MAY CONSIST OF



SQUAD WEAPONS

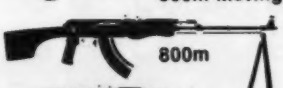
EFFECTIVE RANGE:

1 RPG 7



500m Stationary target
300m Moving target

1 RPK MG

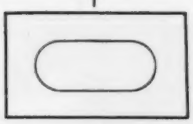


800m

6 AKMS

400m

TANK COMPANY



COMPANY HQ

1st PLATOON

2nd PLATOON

3rd PLATOON

NOTE:
TANK COMPANY IN THE TANK BATTALION OF A MOTORIZED RIFLE REGIMENT HAS 4 TANKS IN A PLATOON

TANK COMPANY MAY CONSIST OF

T-55 or

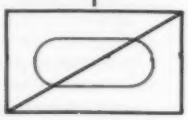
T-55 IS BEING REPLACED BY T-64 IN MOST CAT. ONE DIV.

T-62 TANKS

EFFECTIVE RANGE AGAINST ARMOR 1500 M

Warsaw Pact

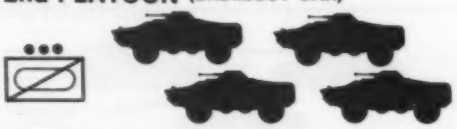
RECONNAISSANCE COMPANY



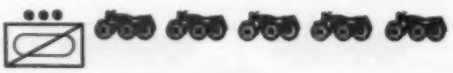
COMPANY HQ (+RADIO RECON ELM)

1st PLATOON (PT-76 TANK/BMP-R)

2nd PLATOON (BRDM/SCT CAR)



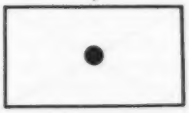
3rd PLATOON (LONG RANGE RECON)
(MTRCL)



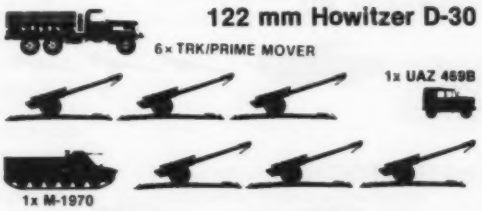
NBC PLATOON (ATTACH FROM NBC CO)

A RECON COMPANY MAY CONSIST OF

BATTERY

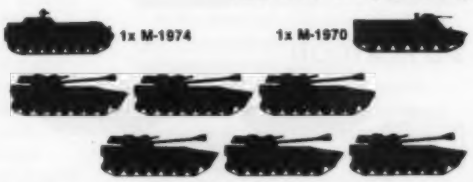


122 mm Howitzer D-30



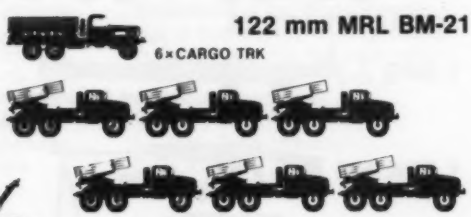
152 mm Howitzer D-1

122 mm SP (M-1974)



152 mm SP (m-1973)

122 mm MRL BM-21



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